

SERVICE MANUAL

1950 MULTISCAN Color Monitor

JUNE, 1990

PN-314036-01

PRECAUTIONS AND NOTICES

1 SAFETY PRECAUTIONS

1. Observe all caution and safety related notes located inside the display cabinet.
2. Operation of these displays outside the cabinet or with the cover removed, involves a shock hazard from the display power supplies. Work on the display should not be attempted by anyone who is not thoroughly familiar with precautions necessary when working on high voltage equipment.
3. Do not install, remove or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while handling picture tube. Keep picture tube away from the body while handling.
4. The picture tube is constructed to limit X-RAY radiation to 0.5 mR/HR. For continued protection, use the recommended replacement tube only, and adjust the voltages so that the designated maximum rating at the anode will not be exceeded.
5. Before returning a serviced display to the customer, a thorough safety test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screwheads. Test must be performed to verify that the display is safe to operate without danger or shock. Always perform an AC leakage current check on the exposed metallic parts of the cabinet, such as screwheads. Test method for current leakage described as follows.
 - (a) Plug the AC line cord directly into rated AC outlet (do not use a line isolation transformer during this check).
 - (b) Use an AC voltmeter having 5000 ohms per volt or more sensitivity in the following manner. Connect a 1500 ohms 10 Watt resistor, paralleled by a 0.15mfd, AC type capacitor between a known good earth ground (water pipe, conduit, etc.) and the exposed metallic parts simultaneously. Measure the AC voltage across the combination of 1500 ohms resistor and 0.15mfd capacitor.
 - (c) Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part.
 - (d) Voltage measured must not exceed 0.5 volts RMS. This corresponds to 0.35 milliamp AC. Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.

2 PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety visual inspections and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts which do not have the same safety characteristics as specified in the parts list may create shock, fire, X-RAY radiation or other hazards.

3 SERVICE NOTES

1. When replacing parts or circuit boards, clamp the lead wires around terminals before soldering.
2. When replacing a high wattage resistor (more than 1/2W of metal oxide film resistor) in circuit board, keep the resistor about 10mm (1/2 in) away from circuit board.
3. Keep wires away from high voltage or high temperature components.
4. Keep wires in their original position so as to reduce interference.

4 HIGH VOLTAGE WARNING

Operation of monitor outside of cabinet or with back removed involves a shock hazard. Work on these models should only be performed by those who are thoroughly familiar with precautions necessary when working on high voltage equipment.

Exercise care when servicing this chassis with power applied. Many B plus and high voltage terminals are exposed which, if carelessly contacted, can cause serious shock or result in damage to the chassis. Maintain interconnecting ground lead connections between chassis, picture tube dag when operating chassis.

Certain HV failures can increase X-ray radiation. Monitor should not be operated with HV levels exceeding the specified rating for their chassis type. The maximum operating HV specified for the chassis used in this monitor is

24 KV \pm 1KV

with a line voltage of 120V AC. Higher voltage may also increase possibility of failure in HV supply.

It is important to maintain specified values of all components in the horizontal and high voltage circuits and anywhere else in the monitor that could cause a rise in high voltage or operating supply voltages. No changes should be made to the original design of the monitor. Components shown in the shaded areas on the schematic should be replaced with exact factory replacement parts. The use of unauthorized substitute parts may create a shock, fire or other hazard.

To determine the presence of high voltage, use an accurate, high impedance, HV meter connected between second anode lead and CRT dag grounding device. When servicing the High Voltage System, remove static charge from it by connecting a 10K ohm resistor in series with an insulated wire (such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord disconnected from AC power outlet).

The picture tube used in this monitor employs integral implosion protection. Replace with tube of the same type number for continued safety. Do not lift picture tube by the neck. Handle the picture tube only and after discharging the high voltage completely.

H.V. Protector

The high Voltage protector control 1 (VR2002) and control 2 (VR2003) are permanently sealed at factory.

Do not attempt to readjust.

SPECIFICATIONS**A. Electrical Description**

CRT: 14" (13V) 90 Deflection, 29mm neck, 0.31mm Dot pitch, Non-glare screen.

Input signal

Video: TTL Level Positive Analog 0.6Vp-p/75 OHM Positive.

Sync: Separate sync. TTL Level
 Horizontal sync. Positive/Negative
 Vertical sync. Positive/Negative
 Composite sync. TTL Level Positive/Negative
 Composite sync. on Green Video
 (sync 0.3Vp-p Negative, Video 0.6Vp-p Positive)

Display colors

TTL Input: 8/16/64 colors
 Analog Input: Unlimited colors

Synchronization

Horizontal: 15.5KHz to 37KHz
 Vertical: 50 to 80Hz (Non Interlace)

Resolution

Horizontal: 800 dots
 Vertical: 600 lines

Video band width: 30MHz (-3dB)

Misconvergence: Center max 0.3mm
 Corner max 0.5mm

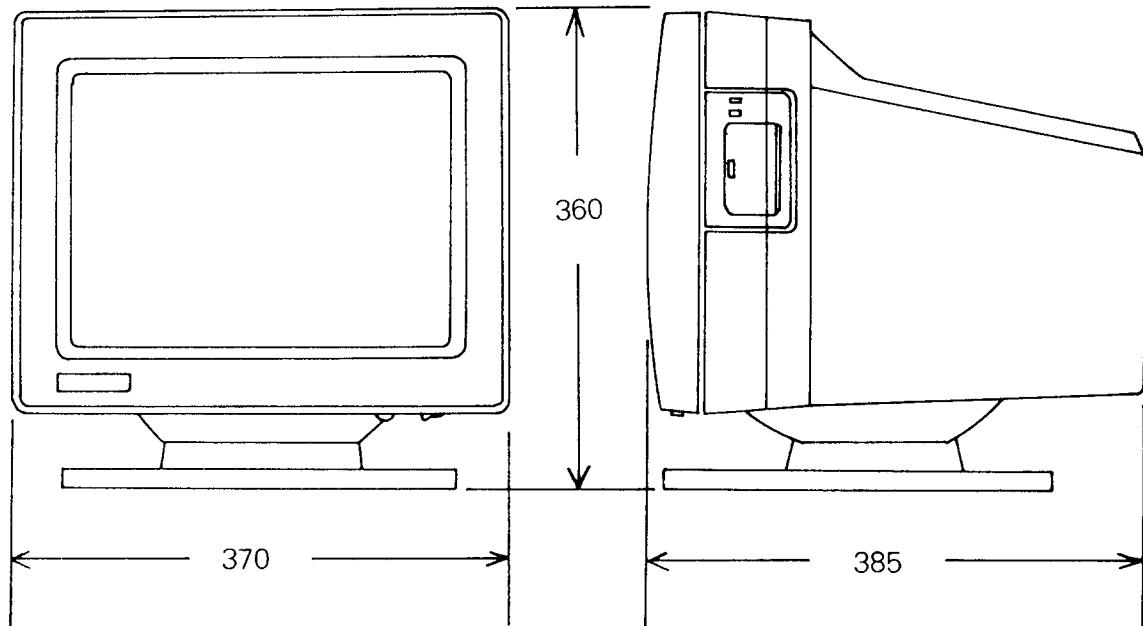
Power supply: AC120VAC or 220VAC (50/60Hz)

Power consumption: 80W

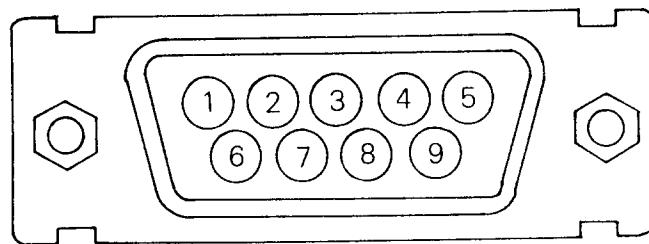
NOTE: The above specifications are subject to change without notice for further improvement

B. Mechanical Description

- | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|----------------|--------------------|----------------|--------------------|--|------------------|--|-----------------|--|---------------------|--|-----------------|--|---------------------------------|--|-----------------|-----------------|--------------|--|----------------------|--|----------------|
| 1. Cabinet: | Molded plastic cabinet with attachable tilt swivel base. | | | | | | | | | | | | | | | | | | | | | | |
| 2. Dimension: | Monitor 370 (W) x 360 (H) x 385 (D) mm Carton 456 (W) x 452 (H) x 464 (D) mm | | | | | | | | | | | | | | | | | | | | | | |
| 3. Weight: | 13Kg (Net) 15Kg (Gross) | | | | | | | | | | | | | | | | | | | | | | |
| 4. Controls | <table border="0"><tr><td>Rear controls:</td><td>TTL/ANAGLOG switch</td></tr><tr><td>Side controls:</td><td>Brightness control</td></tr><tr><td></td><td>Contrast control</td></tr><tr><td></td><td>V. Size control</td></tr><tr><td></td><td>V. Position control</td></tr><tr><td></td><td>V. Hold control</td></tr><tr><td></td><td>H. Position control Text Switch</td></tr><tr><td></td><td>H. Width Switch</td></tr><tr><td>Front controls:</td><td>Power Switch</td></tr><tr><td></td><td>Multidisplay control</td></tr><tr><td></td><td>(color switch)</td></tr></table> | Rear controls: | TTL/ANAGLOG switch | Side controls: | Brightness control | | Contrast control | | V. Size control | | V. Position control | | V. Hold control | | H. Position control Text Switch | | H. Width Switch | Front controls: | Power Switch | | Multidisplay control | | (color switch) |
| Rear controls: | TTL/ANAGLOG switch | | | | | | | | | | | | | | | | | | | | | | |
| Side controls: | Brightness control | | | | | | | | | | | | | | | | | | | | | | |
| | Contrast control | | | | | | | | | | | | | | | | | | | | | | |
| | V. Size control | | | | | | | | | | | | | | | | | | | | | | |
| | V. Position control | | | | | | | | | | | | | | | | | | | | | | |
| | V. Hold control | | | | | | | | | | | | | | | | | | | | | | |
| | H. Position control Text Switch | | | | | | | | | | | | | | | | | | | | | | |
| | H. Width Switch | | | | | | | | | | | | | | | | | | | | | | |
| Front controls: | Power Switch | | | | | | | | | | | | | | | | | | | | | | |
| | Multidisplay control | | | | | | | | | | | | | | | | | | | | | | |
| | (color switch) | | | | | | | | | | | | | | | | | | | | | | |



5. Input signal terminal: 9 PIN D-sub connector (male)

PIN ASSIGNMENTS AND SIGNAL LEVELS**PIN ASSIGNMENT OF IBM GRAPHICS ADAPTER**

| IBM ADAPTERS PIN-ASSIGNMENT | COLOR GRAPHICS TTL 16 COLORS | ENHANCED GRAPHICS TTL 64/16 COLORS | PROFESSIONAL GRAPHICS ANALOG |
|--------------------------------|---------------------------------|---------------------------------------|---------------------------------|
| 1 | GROUND | GROUND | *RED |
| 2 | GROUND | SECONDARY RED | *GREEN |
| 3 | RED | PRIMARY RED | *BLUE |
| 4 | GREEN | PRIMARY GREEN | COMPOSITE SYNC |
| 5 | BLUE | PRIMARY BLUE | MODE CONTROL |
| 6 | INTENSITY | SECONDARY GREEN /INTENSITY | RED GROUND |
| 7 | NON-CONNECTION | SECONDARY BLUE | GREEN GROUND |
| 8 | HORIZONTAL SYNC. | HORIZONTAL SYNC. | BLUE GROUND |
| 9 | VERTICAL SYNC. | VERTICAL SYNC. | GROUND |

PIN ASSIGNMENT OF OTHER COMPUTERS

| SIGNAL PIN ASSIGNMENT | TTL | | | ANALOG | | | | | | | |
|-----------------------------|--------------------|-----------|--------------------|-------------------|--------------------|--------------------|--|--|--|--|--|
| | 8 COLORS | 16 COLORS | 64 COLORS | SEPARATE SYNC. | COMPOSITE SYNC. | SYNC. ON GREEN | | | | | |
| 1 | GROUND | | | *RED | | | | | | | |
| 2 | — | | SECONDARY RED | *GREEN | | GREEN @H/V SYNC | | | | | |
| 3 | RED | | PRIMARY RED | *BLUE | | | | | | | |
| 4 | GREEN | | PRIMARY GREEN | H.SYNC. | H/V SYNC. | — | | | | | |
| 5 | BLUE | | PRIMARY BLUE | V.SYNC. | — | | | | | | |
| 6 | — | INTENSITY | SECONDARY GREEN | | | | | | | | |
| 7 | — | | SECONDARY BLUE | GROUND | | | | | | | |
| 8 | H. SYNC./H/V SYNC. | | | | | | | | | | |
| 9 | V. SYNC | | | | | | | | | | |

"—" means GROUND or NON-CONNECTION

SIGNAL LEVEL

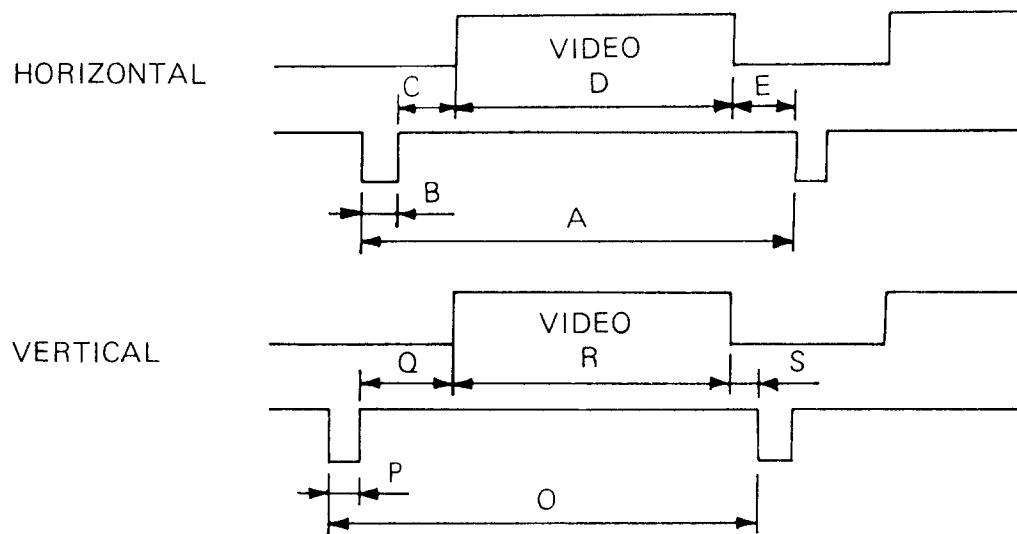
All signal levels, except for those listed below, are TTL.

" * " means 0.6 Vp-p (VIDEO)

" @ " means 0.6 Vp-p (VIDEO), 0.3 Vp-p (SYNC)

TIMING CHART

A. SEPARATE SYNC.



Sync. Polarity: Positive/Negative

| | fH | EXAMPLE TIMING | | | REMARKS |
|------------|--------|----------------|----------|---------|---|
| | | 15.75KHz | 24.83KHz | 30.1KHz | |
| Horizontal | A(us) | 63.5 | 40.28 | 33.2 | 64.5 to 28.6 us (15.5 to 35KHz) |
| | B(us) | 5.08 | 3.04 | 3.43 | 2 to 10us |
| | C (us) | 7.62 | 2.80 | 2.86 | 2 to 8us |
| | D (us) | 46.3 | 32.4 | 25.76 | 20 TO 48US * |
| | E (us) | 4.4 | 2.04 | 1.14 | 1 to 6us and E/(B+C) = 0.1 TO 0.45 Range 1: E/(B+C) = 0.3 TO 0.5 |
| Vertical | O (ms) | 16.6 | 17.72 | 17.66 | 16.1 to 17.8ms (56 to 62Hz) |
| | P (ms) | 0.26 | 0.32 | 0.26 | 0.05 to 0.7ms |
| | Q (ms) | 1.6 | 1.01 | 0.73 | 0.08 to 2.2ms |
| | R (ms) | 13.84 | 16.11 | 16.6 | 12 to 17ms and (O-R) = 0.8 to 4.0 |
| | S (ms) | 0.9 | 0.28 | 0.066 | 0 to 1.6ms and Q = $\{(O-R)-0.8\}/2 \pm 0.2$ |

Range 1: A = 64.5 to 50us

* Both SEPARATE SYNC. & COMPOSITE SYNC.

Range 2: A = 50 to 37us

Range 1: D/A = 0.7 - 0.75

Range 3: A = 37 to 28.6us

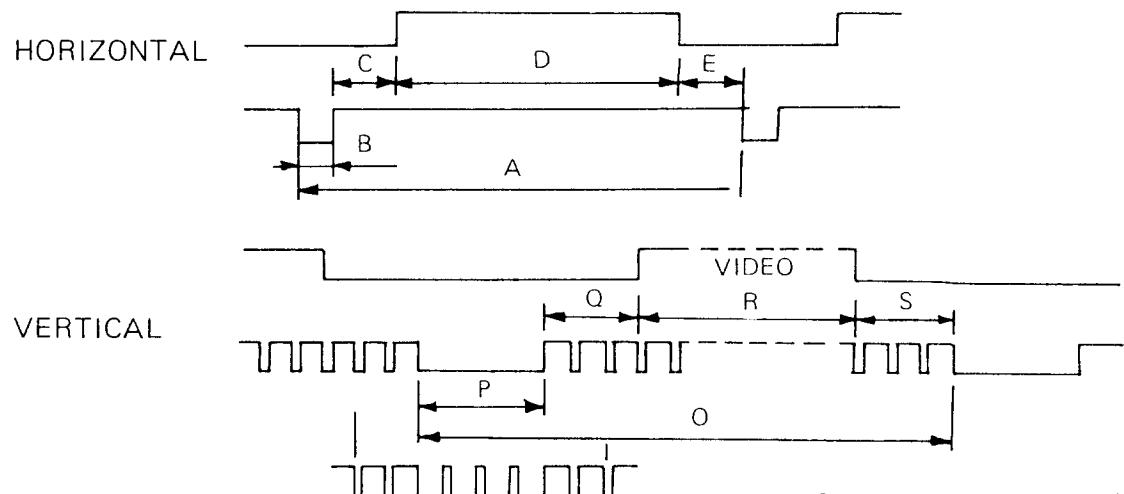
Range 2: D/A = 0.8 - 0.85

Range 3: D/A = 0.75 - 0.8

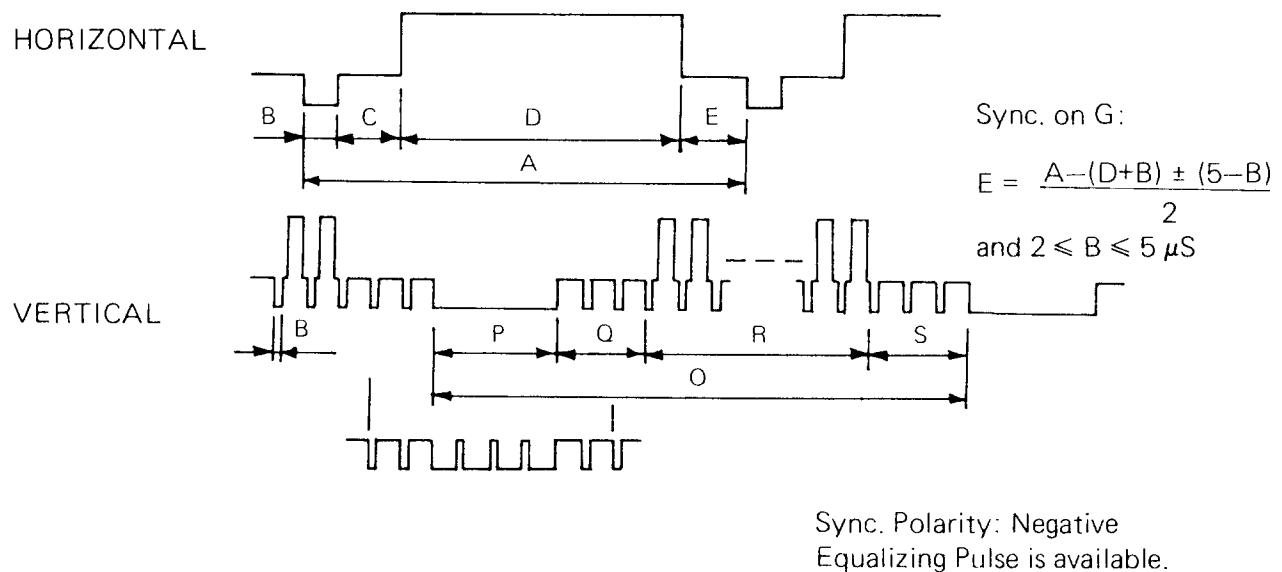
PRESET TIMING

| Horizontal | fH | 15.8KHz | 22KHz | 30.5KHz | Vertical | fH | 15.8KHz | 22KHz | 30.5KHz |
|------------|--------|---------|-------|---------|----------|--------|---------|-------|---------|
| | A(us) | 63 | 45.5 | 33 | | O (ms) | 16.4 | 16.68 | 16.6 |
| | B(us) | 4.2 | 4.9 | 4.5 | | P (ms) | 0.075 | 0.6 | 0.07 |
| | C (us) | 7.2 | 1.6 | 2.8 | | Q (ms) | 1.525 | 0.08 | 2.12 |
| | D (us) | 45 | 39 | 25.6 | | R (ms) | 12.6 | 16 | 13.05 |
| | E (us) | 6.6 | 0 | 0.1 | | S (ms) | 2.2 | 0 | 1.36 |

B. COMPOSITE SYNC.



Composite Sync. & Video (Sync. on Green)



| | fH | EXAMPLE TIMING | | | REMARKS |
|------------|--------|----------------|---------|---------|--|
| | | 15.98KHZ | 25.5Khz | 31.5KHz | |
| Horizontal | A (us) | 62.6 | 39.2 | 31.75 | 64.5 to 28.6us (15.5 to 35KHz) |
| | B (us) | 5.41 | 2.51 | 2.06 | 2 to 10us |
| | C (us) | 8.0 | 3.30 | 3.62 | 3.3 to 8us |
| | D (us) | 44.7 | 32.14 | 24.52 | 20 to 48us * |
| | E (us) | 4.47 | 1.25 | 1.56 | 1 to 6us and E/(B+C) = 0.1 TO 0.45 Range 1:E/(B+C)= 0.3 to 0.5@ |
| Vertical | O (ms) | 16.35 | 16.67 | 16.67 | 16.1 to 17.8ms (56 to 62Hz) |
| | P (ms) | 0.19 | 0.12 | 0.19 | 0.05 to 0.19ms |
| | Q (ms) | 1.82 | 0.80 | 1.02 | 0.8 to 2.2ms |
| | R (ms) | 13.47 | 15.63 | 15.24 | 12 to 17ms and (O-R) = 0.8 to 4.0 |
| | S (ms) | 0.87 | 0.12 | 0.22 | 0 to 1.6ms and Q = $\{(O-R) - 0.8\} / 2 \pm 0.2$ |

GENERAL

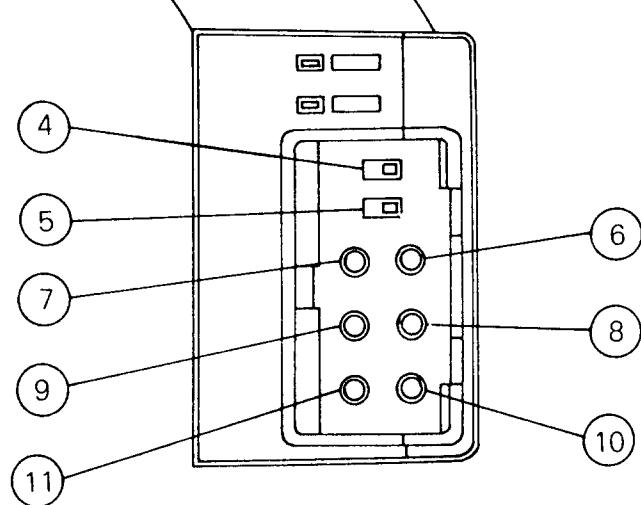
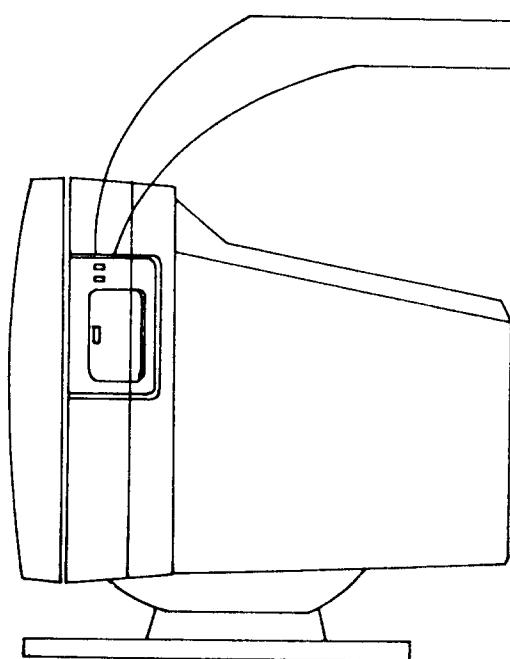
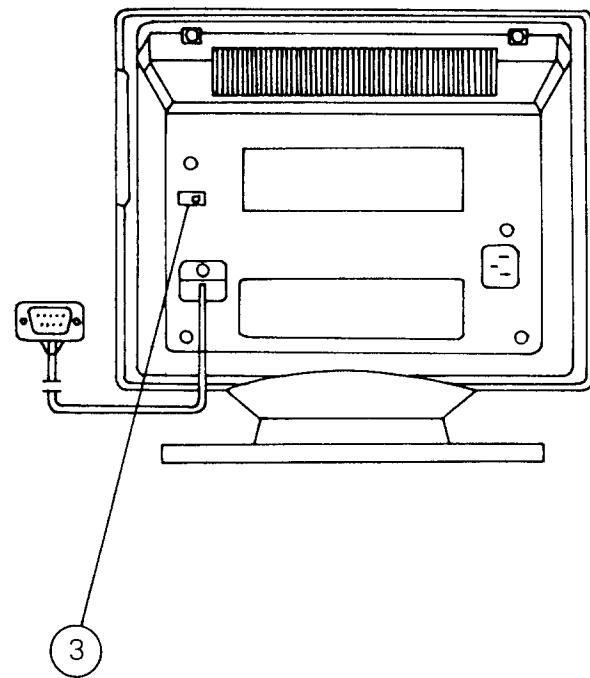
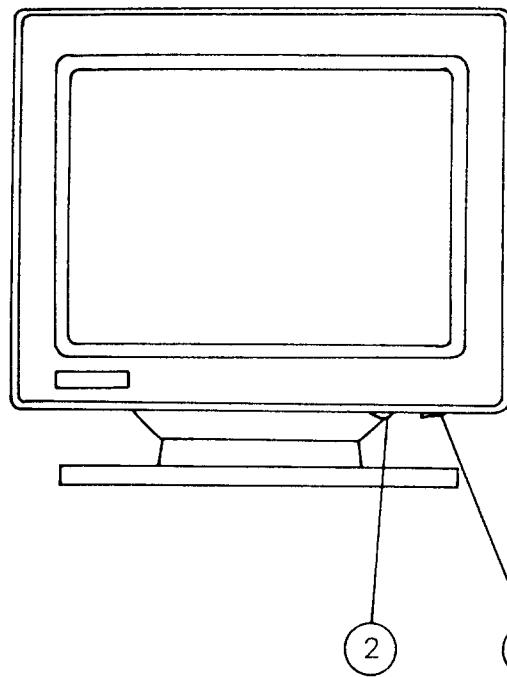
CM-314 The Intelligent Monitor is a high resolution color monitor that automatically adjusts to graphics board scanning frequencies from 15.5KHz to 37KHz.

CM-314 gives IBM PC, PC/XT, and PC/AT users crisp text and vivid color graphics displays when used with any of the four IBM graphics adapters (the CGA, EGA, PGA or VGA)

CM-314 can also be used with other IBM compatible graphics adapters to provide IBM users with the widest range of color monitor compatibility and capability available in the market place.

FEATURES

- * CM-314 automatically scans all frequencies between 15.5KHz and 37KHz.
- * CM-314 is compatible with the IBM PC, PC/XT, PC/AT and look alikes.
- * CM-314 is compatible with the IBM Professional Graphics Adapter, the IBM Enhanced Graphics Adapter, the IBM Video Graphics Array, the IBM Multi color Graphics Array and other IBM compatible graphics adapters.
- * CM-314 wide compatibility makes it possible to upgrade boards or software without purchasing a new monitor.
- * CM-314 has a maximum horizontal resolution of 800 dots and a maximum vertical resolution of 600 lines for superior clarity of display.
- * CM-314 offers both TTL and ANALOG signal inputs, and in the ANALOG mode can display an unlimited palette of colors depending on the graphics board and software being used.
- * CM-314 features a TEXT SWITCH (TTL mode only) with a choice of four colors (Green, Amber, White with Blue Background and white) displaying word processing, spread sheets, databases or other software in crisp alpha numeric text on a dark-bulb black background.
- * CM-314 has a 14 inch diagonal display and a large, 13 inch viewing area.



1. POWER SWITCH

Used to turn the POWER ON or OFF. When power is ON, the power indicator is lit.

2. COLOR SWITCH

When TEXT switch is OFF. There are three color configuration (8/16/64 colors) necessary when using non-IBM compatible graphics adapters can be set using the switch. Refer to instructions accompanying the graphics adapter being used for information on how many colors the adapter can display.

When TEXT switch is ON. the text of the display will appear in one color (Green, Amber, White with Blue Background and normal white) Selected by this switch.

NOTE: This switch should be set correctly in relation to the input signal of the graphics adapter being used. Refer to instructions accompanying the graphics adapter for information on the input signal and refer to No 4 below.

3. TTL/ANALOG SWITCH

Used to select an input Video Signal-either TTL or Analog-of the graphics adapter.

It is important to determine whether the input signal of the graphics adapter being used is Analog or TTL prior to connecting the adapter with your personal computer.

Refer to instructions accompanying the graphics adapter for information on the input signal.

4. TEXT SWITCH

This switch controls the text mode of CM-314 Refer to No 2 color switch for full information on using the TEXT switch.

NOTE: The text switch and the color switch work only in the TTL mode.

5. H. WIDTH SWITCH

Adjust this switch for the horizontal size of display preferred. When this switch is ON, the width of the display size changes.

NOTE: When the horizontal scanning frequency is over 20KHz H. WIDTH cannot be adjusted.

6. BRIGHT CONTROL

Used to adjust the picture brightness of the screen.

7. CONTRAST CONTROL

Adjust the display to the contrast preferred by the user.

8. V. SIZE CONTROL

Turn this knob for the proper vertical size of the display. Turn the knob clockwise for a larger display; turn it counterclockwise for a smaller display

9. V. POSITION CONTROL

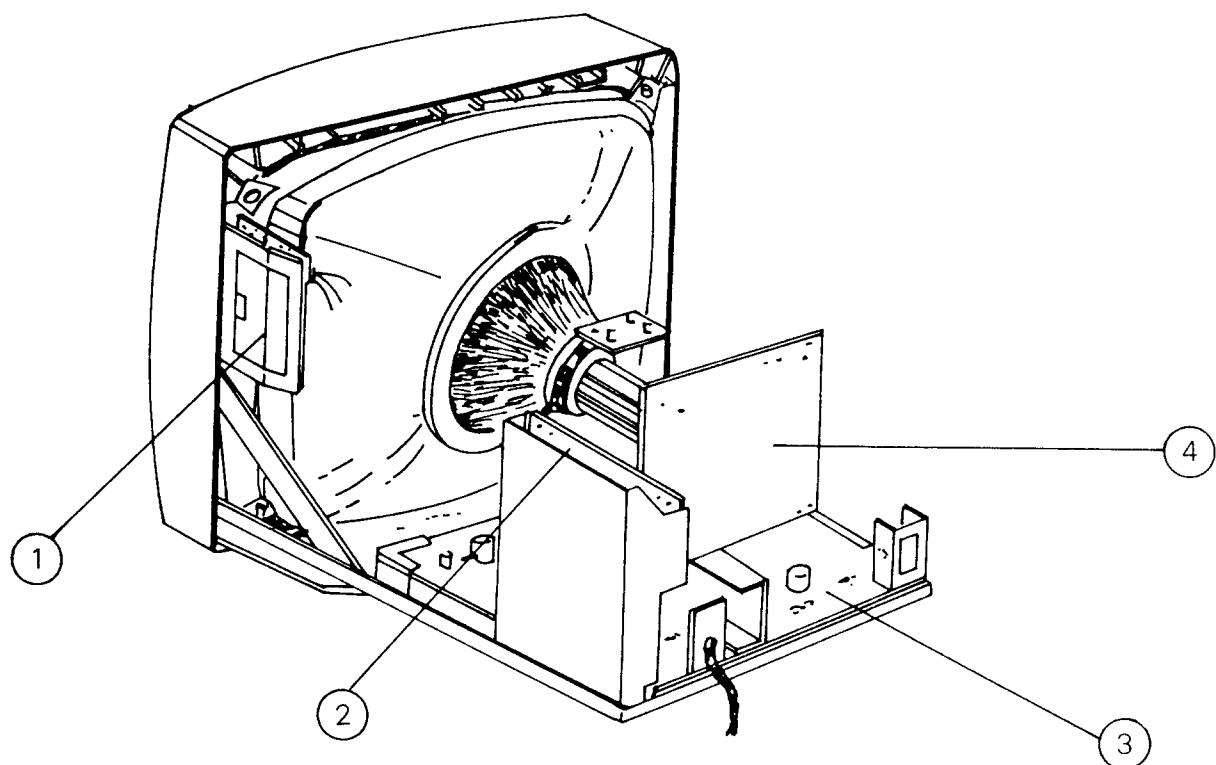
Turn this knob for the proper vertical position of the display. Turn the knob clockwise for a higher display position; Turn it counterclockwise for a lower display position

10. V. HOLD

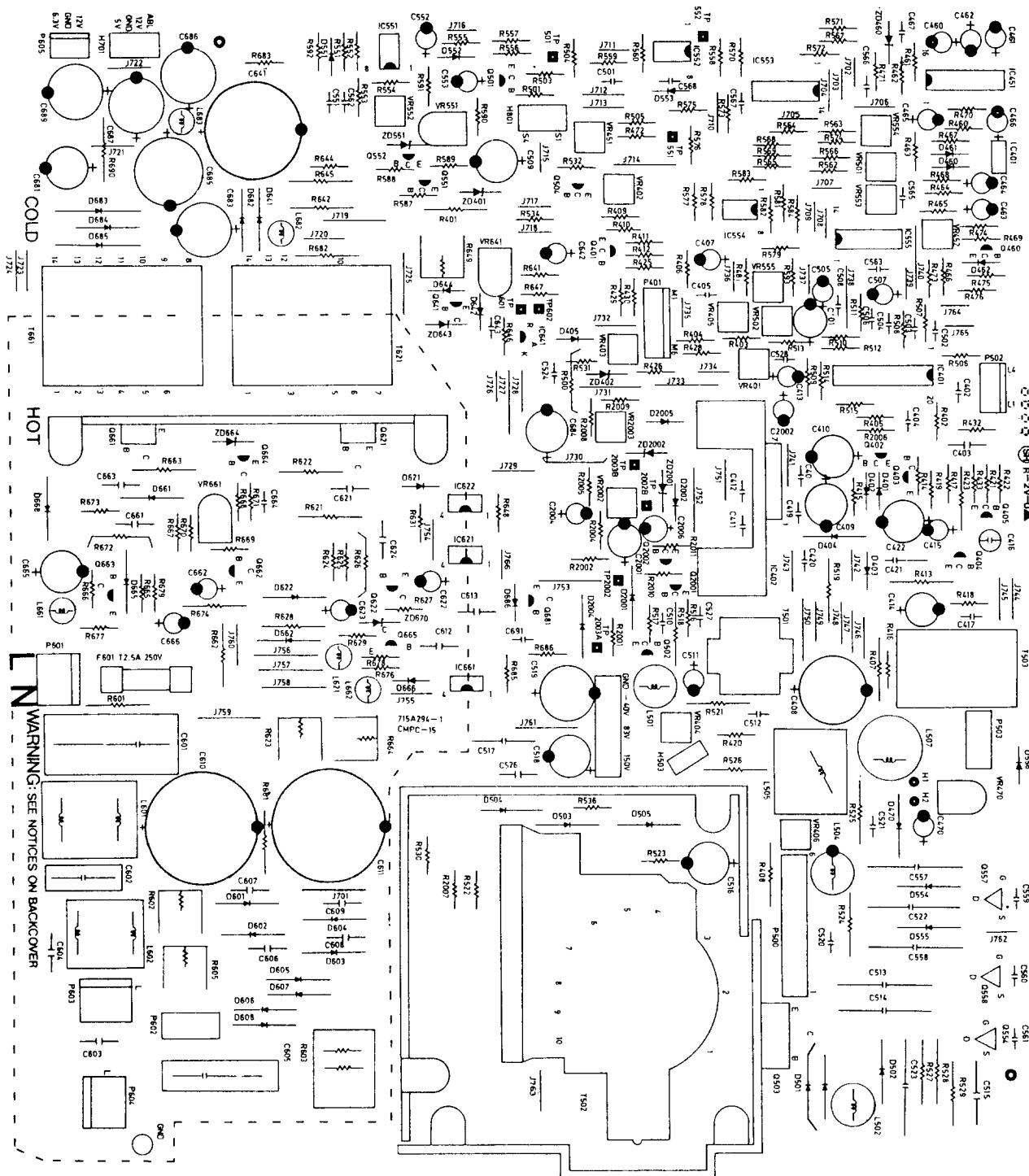
Adjust the vertical stability of the display.

11. H. POSITION CONTROL

Turn this knob for the proper horizontal position of the display. Turn knob clockwise to reposition display to the right; turn it counterclockwise to reposition to the left.

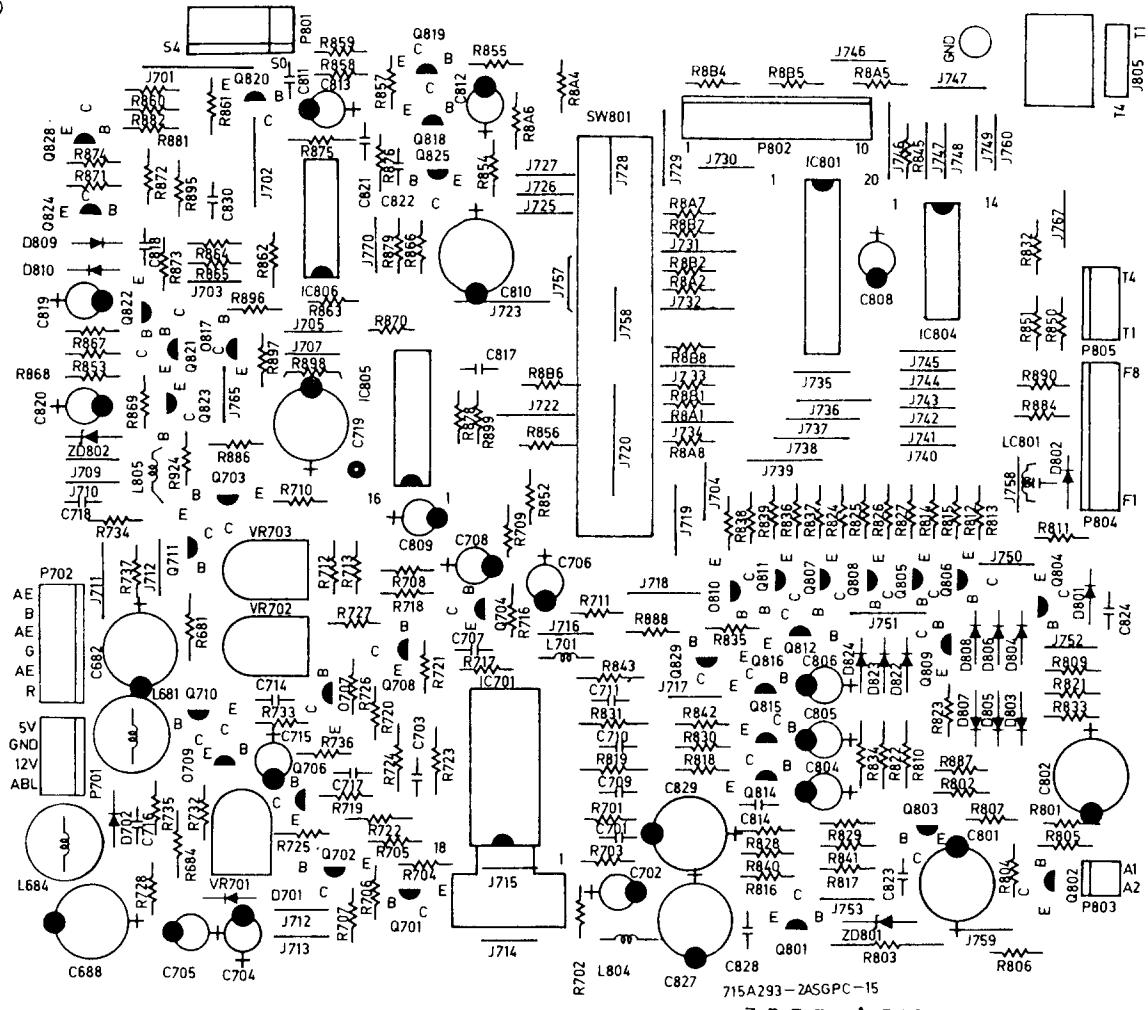


1. CONTROL BOARD (CNPC-15)
2. SIGNAL BOARD (SGPC-15)
3. MAIN BOARD (CMPC-15)
4. CRT BOARD (CRPC-15)

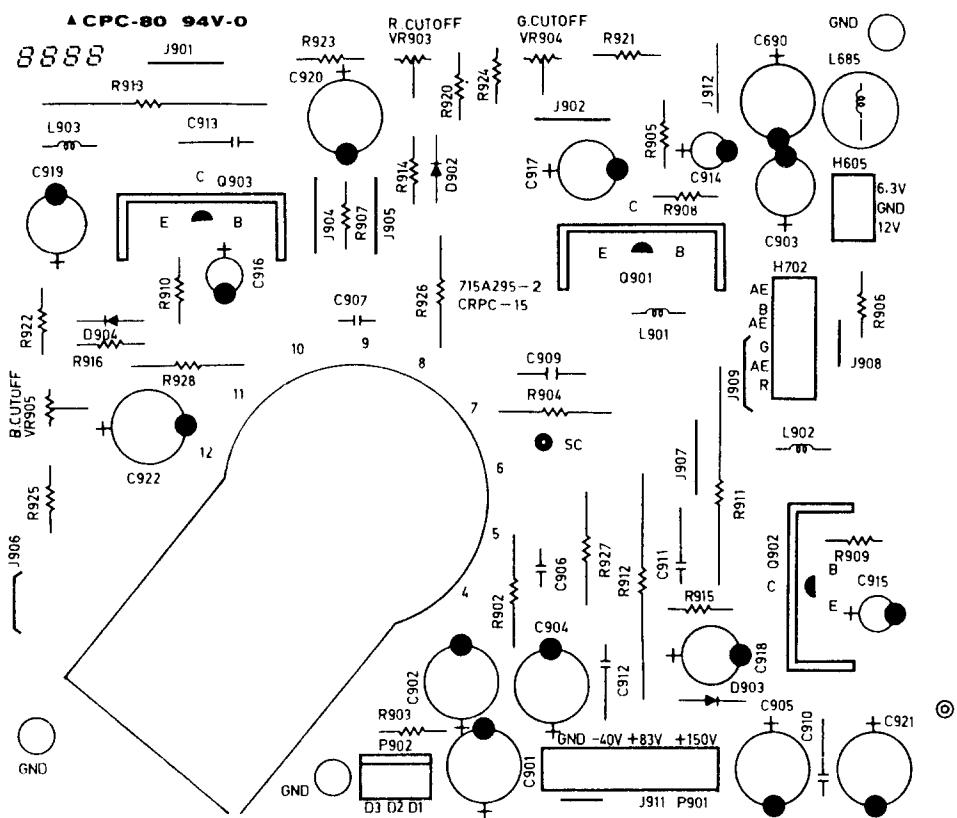


CMPC-15

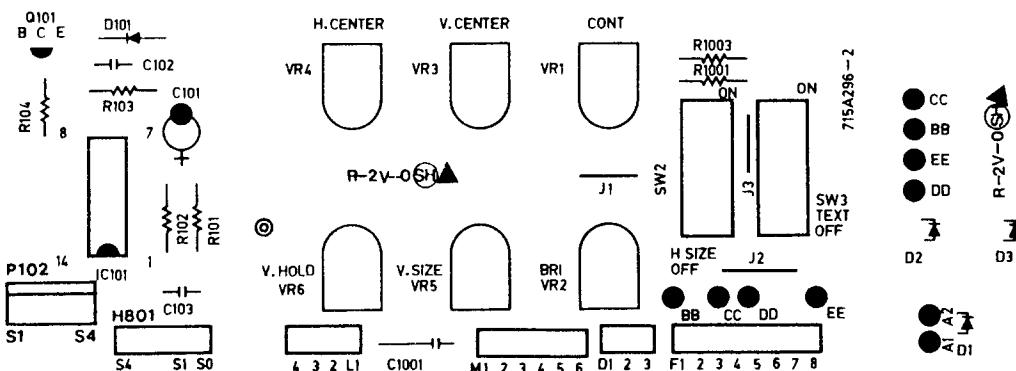
⑤



SGPC-15



CRPC-15



CNPC-15

ALIGNMENT PROCEDURE

Adjust conditions and precautions

- 1) Power supply voltage
- 2) Warm up time

The display must be on for at least 20 minutes before starting alignments.

This is especially critical in color temperature and white balance adjustments.

- 3) Signals

Video: Analog 0.6 Vp-p, 75 OHM, positive
 Analog sync. on green
 Video: 0.6 Vp-p
 Synchronizing 0.3 Vp-p

Synchronizing: TTL level negative/positive
 Separate/ composite

Scanning frequency: H. 15KHz – 37KHz
 V. 50Hz – 80Hz

Unless otherwise specified, adjust at signal 6 (22 KHz)

1. SW. REG.

1-1 +B1 (VR661) 83V Line
Adjust VR661 to be 83VDC

1-2 High Voltage control (VR641)
This control is permanently sealed at factory.
Do not attempt to readjust.

2. DEF Pre-Adjustment

2-1 +16v Adjustment
Adjust TP551-GND to $+16V \pm 0.05V$ DC (VR551)

2-2 Receive signal 1 and adjust VR552 so that the voltage between TP552 and GND is $10 \pm 0.05V$ DC

2-3 H.V. Protector

The high Voltage protector control 1 (VR2002) and control 2 (VR2003) are permanently sealed at factory.

Do not attempt to readjust.

3. Main Adjustment

Unless otherwise specified, adjust the controls on the control board-CNPC-15 as show below:

VR1 Contrast: Max (fully clockwise)

VR2 Brightness: So that no background raster appears

VR3 V position: Center

VR4 H position: Center

VR5 V size: Center

VR6 V hold: Proper position

SW2 H. size: OFF

SW3 TEXT SW: OFF

Focus control: Adjust for the optimum picture.

3-1 Adjustment of H. raster centering

Turn the brightness control fully clockwise so that background raster can be seen, adjust VR470 so that the background raster is in the center of the CRT screen. If the raster is off to one side, change the connector H503.

NOTE: Due to overscan; it is not possible to center the background raster if the horizontal frequency is between 15KHz and 20KHz, and the SW 2 H. size is ON.

3-2 1. H-hold

- (a) Short between TP501 and GND
- (b) Apply signal 3 (30KHz) and adjust H hold (1) VR502 so that the entire picture appears.
- (c) Apply signal 2 (20KHz) and adjust H hold(2) VR555 so that the entire picture appears.

2. H. position (adjust to the center of the raster)

- (a) Adjust sub H center 1 VR501 to center the picture when signal 3 (30.48KHz) is applied.
- (b) Adjust sub H center 3 VR554 to center the picture (1mm to the left) when signal 6(22K) is input for mutuality between actual EGA timing and test timing.
- (c) Adjust sub H center 2 VR553 to center the picture when signal 5 (15.75KHz) is applied.
- (d) Check that the picture is centered when the signal in a), b), and c) above are applied.

NOTE: Adjust in the order a) → b) → c)

3. Side pincushion

Adjust VR404 and VR406 for the optimum side pincushion distortion.

4. H width

Adjust H width L505 so that the size of the picture when signal 6 (22K) is applied is 240mm.

5. V position

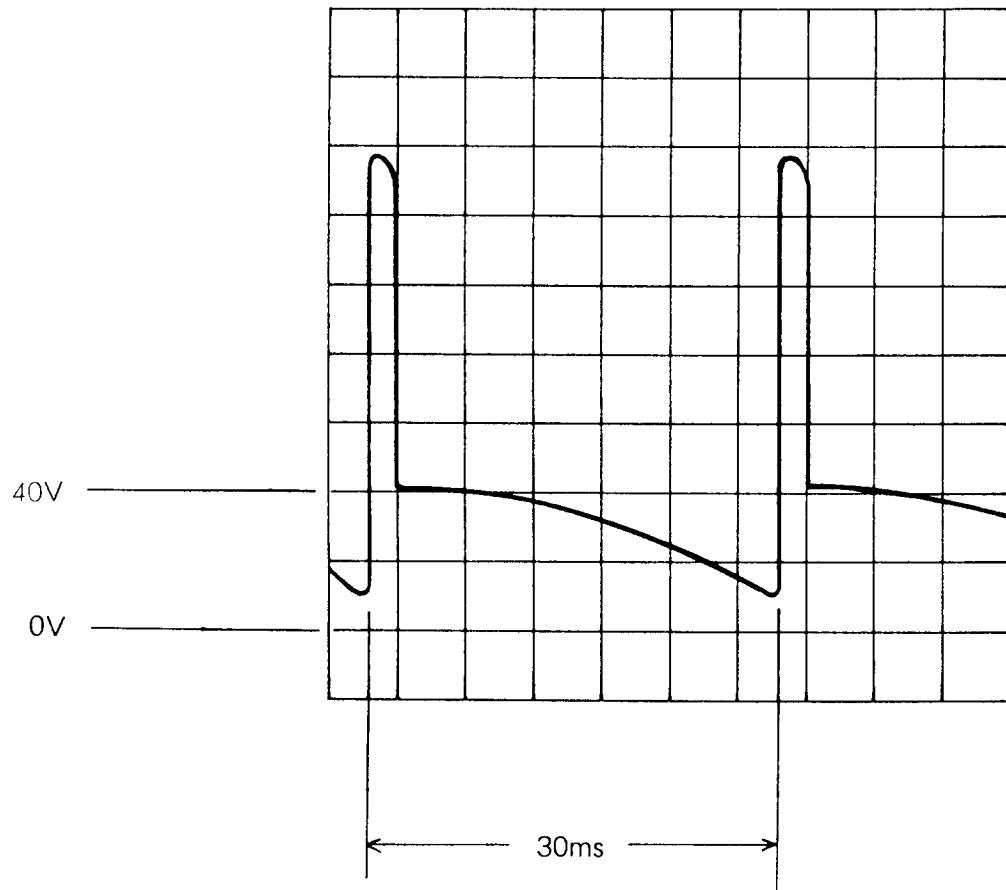
Vertically center the picture when adjustment signal 6 (22KHz) is applied (VR3, V position)

6. V linearity

Adjust VR401 and VR402 so that vertical linearity is optimum when signal 6 (22KHz) is applied.

7. V-hold/V. size

- (a) Remove input signal
- (b) Turn VR6 V-HOLD control fully counterclockwise
- (c) Adjust VR452 so that the Vertical output frequency is 30ms
- (d) Turn VR5 V-SIZE control fully clockwise
- (e) Adjust VR403 and VR451 so that the vertical output waveform and voltage as shown below.



5. Focus Adjustment (Use signal 3)

Turn the contrast control fully clockwise and set the brightness control to a suitable position. Adjust the focus control to the optimum position.

6. Purity Adjustment

- 1) Be sure that the display is not being exposed to any external magnetic fields.
- 2) Ensure that the spacing between the purity, Convergence Magner, (PCM), assembly and the CRT stem is 29 mm \pm 1 mm. (See below diagram)
- 3) Produce a complete, red pattern on the display. Adjust the purity magnet rings on the PCM assembly to obtain a complete field of the color red. This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180°.
- 4) Check the complete blue and complete green patterns to observe their respective color purity. Make minor adjustments if needed.

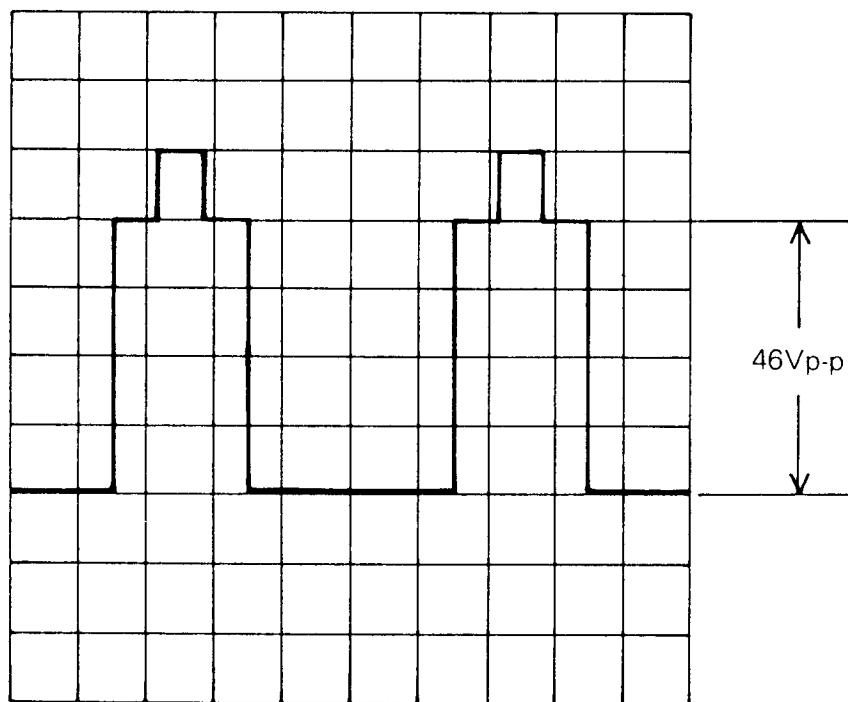
7. Convergence Adjustment

- 1) Produce a magenta crosshatch on the display.
- 2) Adjust the focus for the best overall focus on the display. Also adjust the brightness to the desired condition.
- 3) Vertical red and blue lines are converged by varying the angle between the two tabs of the 4-pole magnets on the PCM assembly. (See above diagrams)
- 4) Horizontal red and blue lines are converged by varying the two tabs together, keeping the angle between them constant.
- 5) Produce a white crosshatch pattern on the display.
- 6) Vertical green and magenta lines are converged by varying the angle between the two tabs of the 6-pole magnets.
- 7) Horizontal green and magenta lines are converged by varying the two tabs together, keeping the angle between them constant.

4-2. Adjustment of gain control-Use signal 7

- (a) Receive a window pattern (Within a range for which ABL does not function ever with a maximum contrast, and preferably with a video range of 1/3 to (1/2H) X (1/2V)
- (b) Turn the contrast control fully clockwise.
- (c) Adjust VR702 so that G OUT on the CRT Board CRPC-15 becomes 46Vp-p.
- (d) Adjust VR701 and VR703 so that the RED color and BLUE color are as Bright as GREEN

Do not include clamp pulse



5. Focus Adjustment (Use signal 3)

Turn the contrast control fully clockwise and set the brightness control to a suitable position. Adjust the focus control to the optimum position.

6. Purity Adjustment

- 1) Be sure that the display is not being exposed to any external magnetic fields.
- 2) Ensure that the spacing between the purity, Convergence Magner, (PCM), assembly and the CRT stem is 29 mm \pm 1 mm. (See below diagram)
- 3) Produce a complete, red pattern on the display. Adjust the purity magnet rings on the PCM assembly to obtain a complete field of the color red. This is done by moving the two tabs in such a manner that they advance in an opposite direction but at the same time to obtain the same angle between the two tabs, which should be approximately 180°.
- 4) Check the complete blue and complete green patterns to observe their respective color purity. Make minor adjustments if needed.

8. Switches and Controls Operation

Confirm the following SWs and controls operate correctly.

Switches

- 1) TTL/ANALOG SW
- 2) COLOR SW
- 3) TEXT SW
- 4) H. Width SW

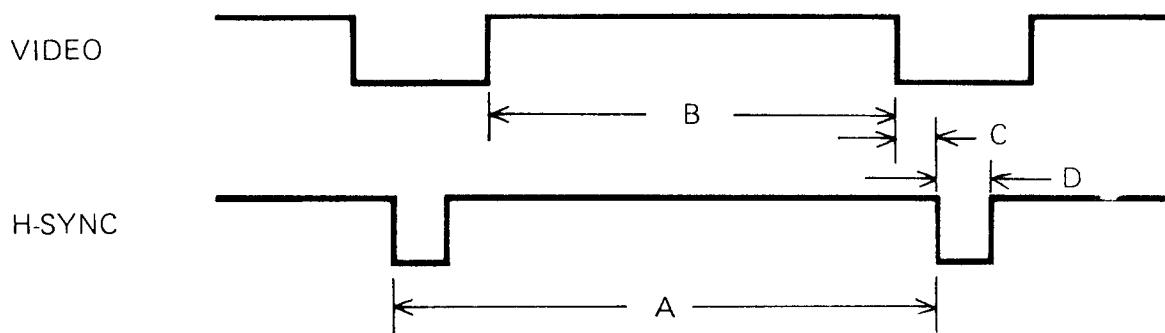
Controls

- 1) Brightness
- 2) Contrast
- 3) V. size
- 4) V. position
- 5) V. Hold
- 6) H. position

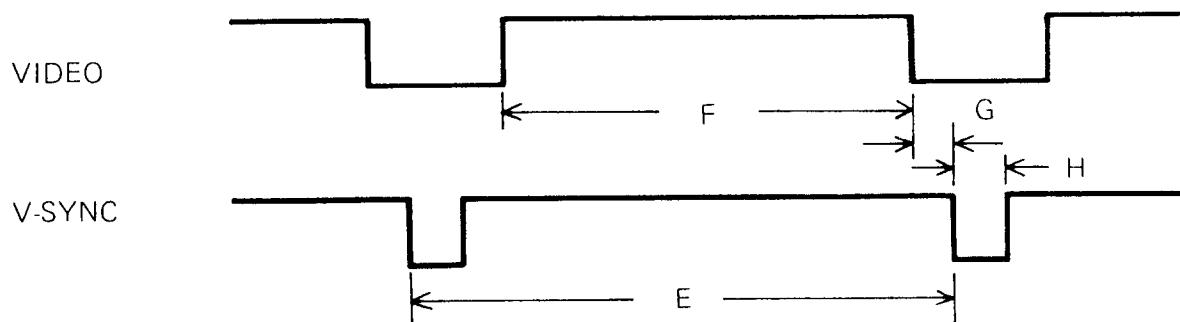
9. Multi Scanning Operation

Confirm the CM-314 operate correctly with IBM PC W/CGA, EGA also PGA, PS2 or with signal 3,4,5, and 6.

HORIZONTAL



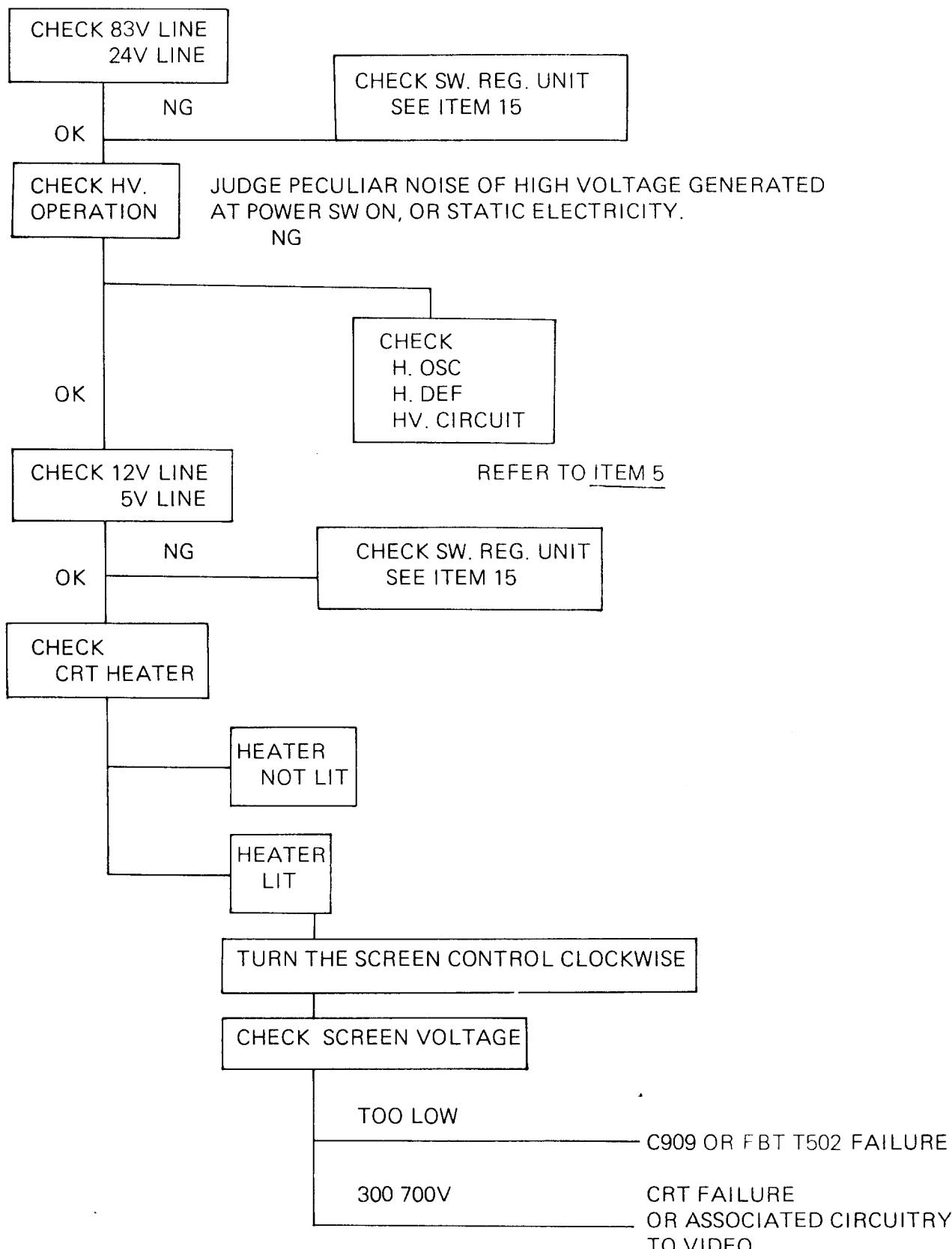
VERTICAL



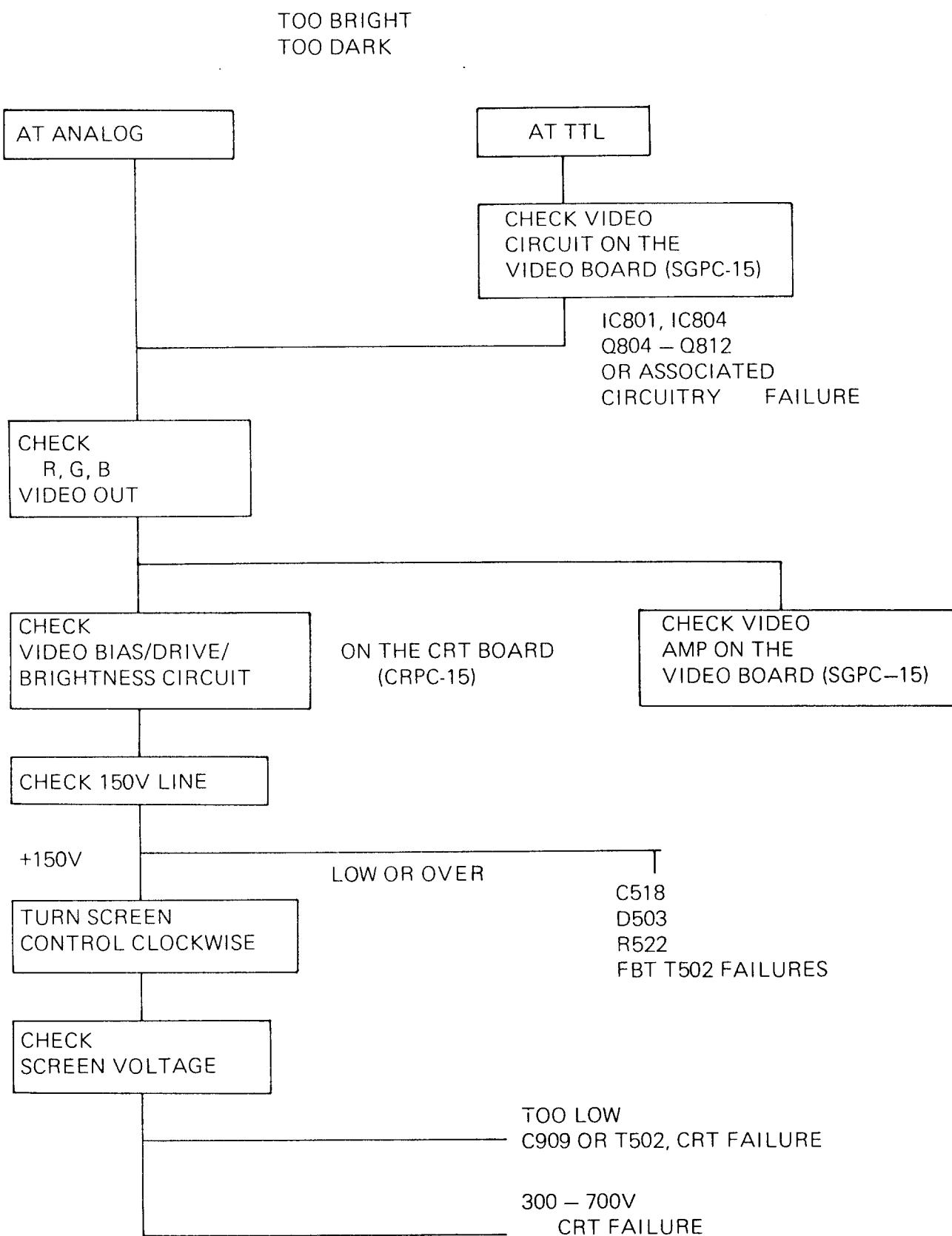
| Signal No. | HORIZONTAL | | | | VERTICAL | | | |
|------------|------------|--------|--------|--------|----------|-------|-------|-------|
| | A (us) | B (us) | C (us) | D (us) | E (H) | F (H) | G (H) | H (H) |
| 1 | 40 | 30.77 | 3.41 | 3.08 | 410 | 380 | 0 | 3 |
| 2 | 50 | 38.46 | 4.03 | 3.85 | 330 | 300 | 1 | 3 |
| 3 | 32.82 | 25.49 | 0.32 | 4.46 | 500 | 480 | 1 | 2 |
| 4 | 32.82 | 25.49 | 0.32 | 4.46 | 500 | 400 | 41 | 2 |
| 5 | 63.1 | 45.07 | 6.76 | 0.49 | 260 | 200 | 35 | 1 |
| 6 | 45.45 | 39.1 | 0.37 | 4.89 | 360 | 350 | 11 | 13 |
| 7 | 63.1 | 11.27 | 24.15 | 3.94 | 260 | 100 | 85 | 1 |
| 8 | 63.1 | 45.07 | 6.76 | 3.94 | 260 | 200 | 35 | 1 |

TROUBLESHOOTING

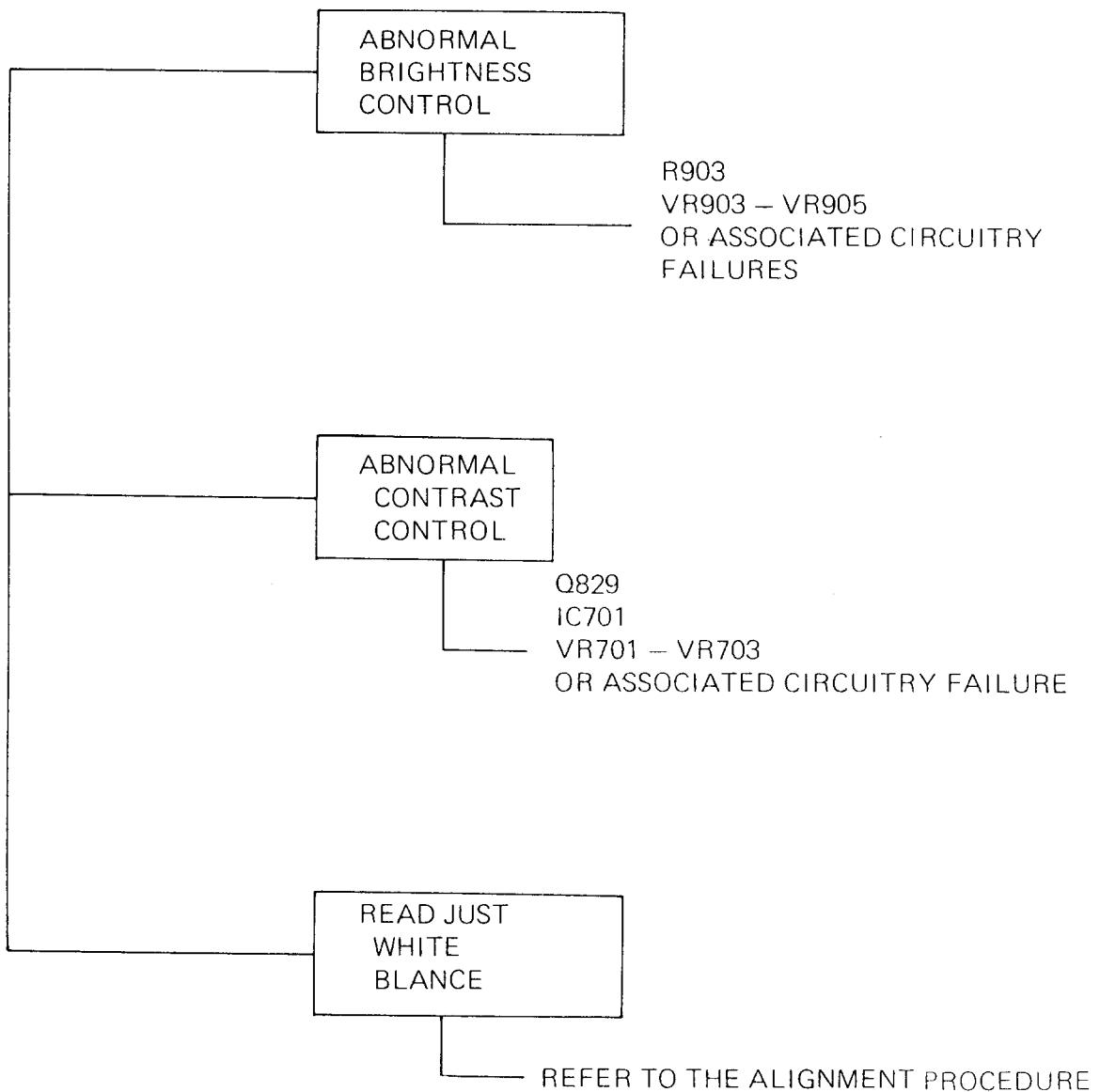
BEFORE USING THIS CHART, PLEASE REFER TO THE TROUBLESHOOTING IN THE USER'S MANUAL

1. NO RASTER

ABNORMAL VIDEO ON CRT SCREEN



3. ABNORMAL WHITE BALANCE AND TRACKING



4. NO BLANKING WORKS

VISIBLE RETRACE LINE ON THE BACK RASTER

CHECK BLANKING CIRCUIT

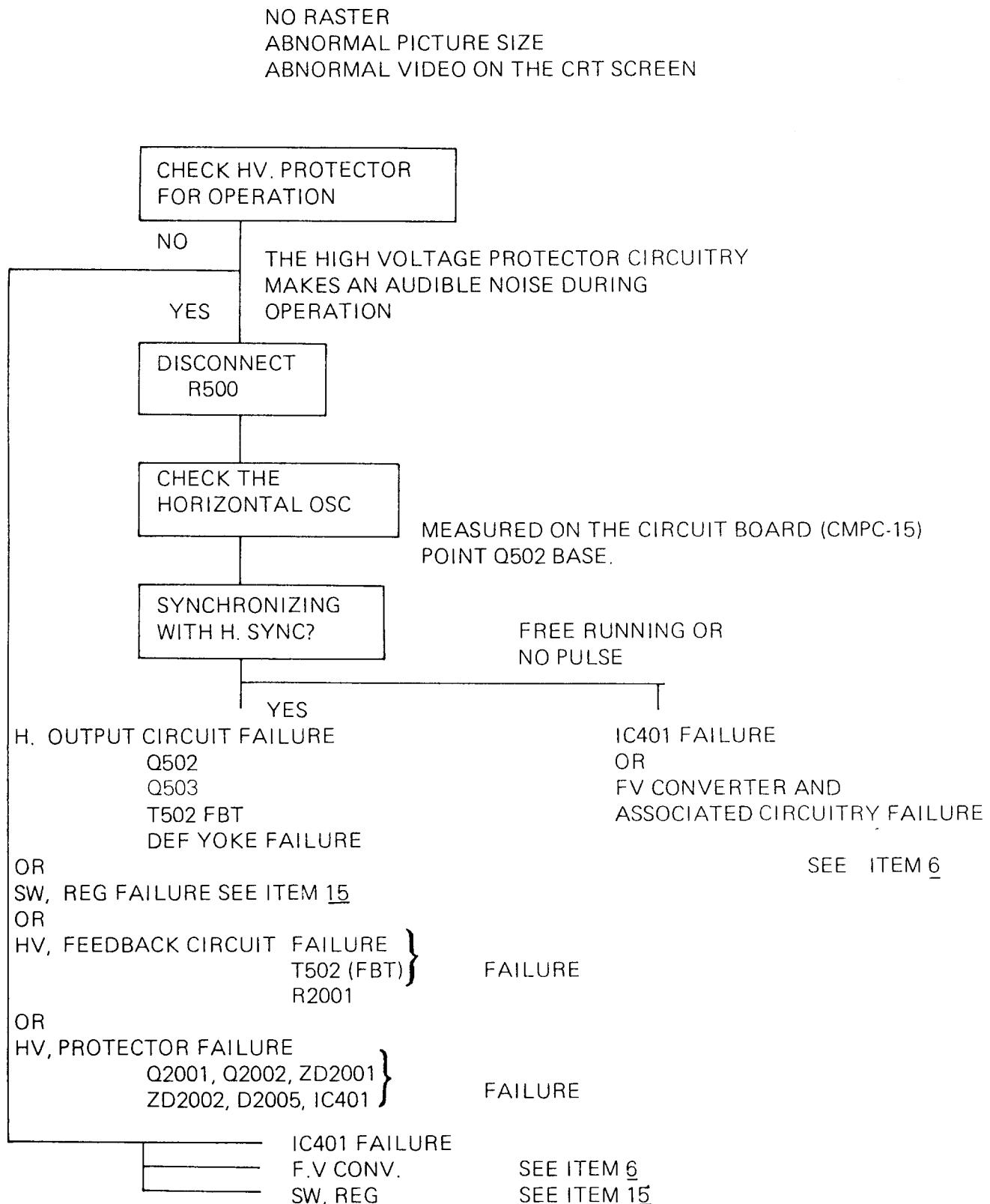
Q504
ZD402
D405
R522

ON THE CIRCUIT BOARD
(CMPC-15)
FAILURE

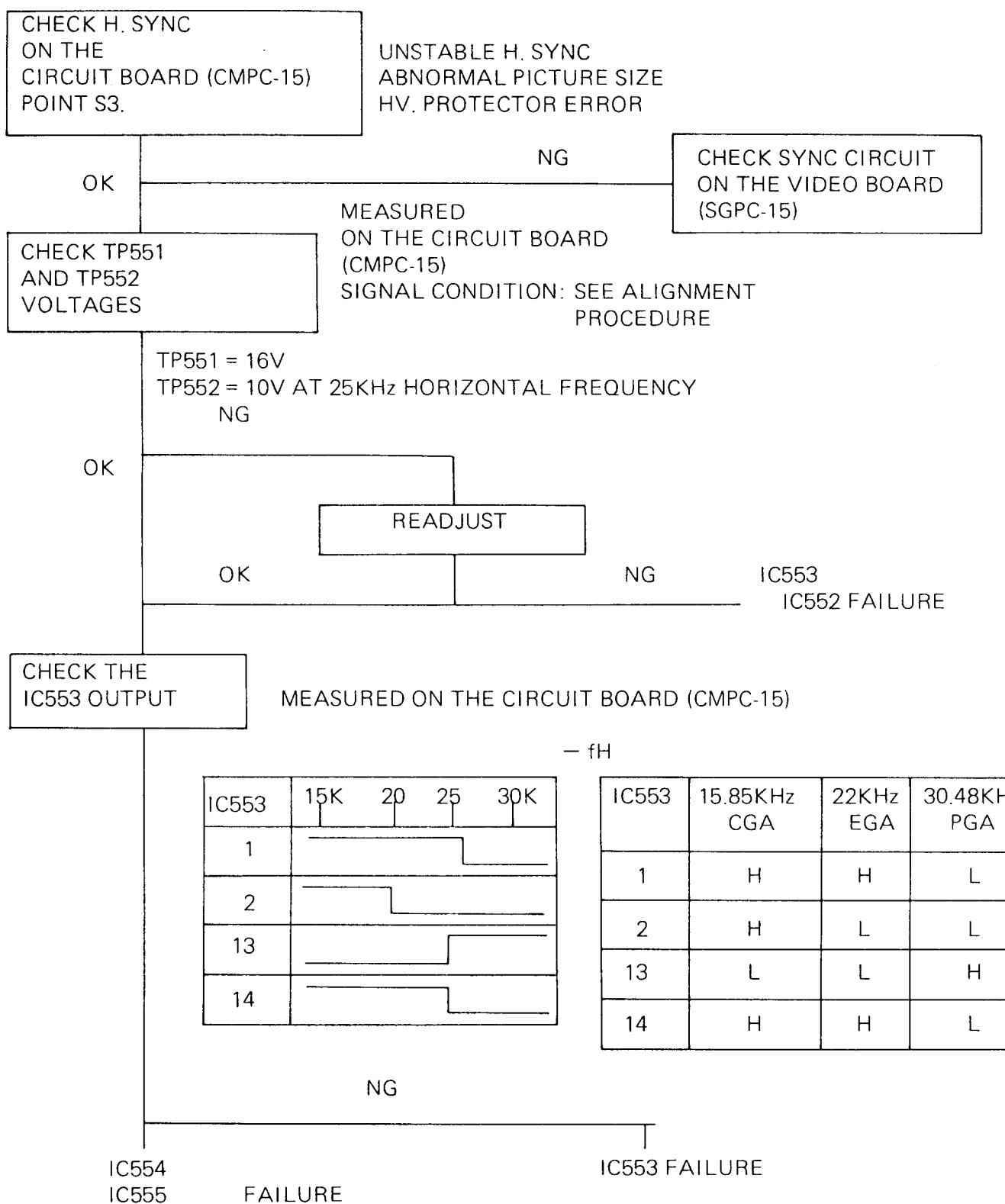
IC804, IC701
Q828, Q703

ON THE VIDEO BOARD
(SGPC-15)
FAILURE

5. H. OSC/DEF/HV. CIRCUIT FAULT

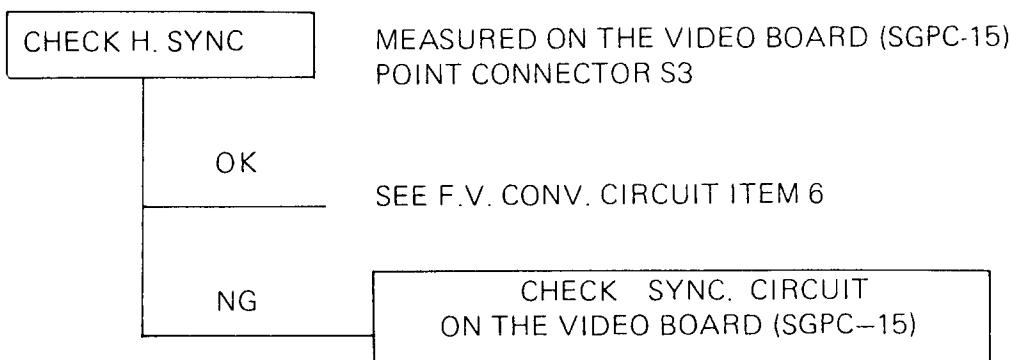


6. F-V CONVERTER AND ASSOCIATED CIRCUITRY

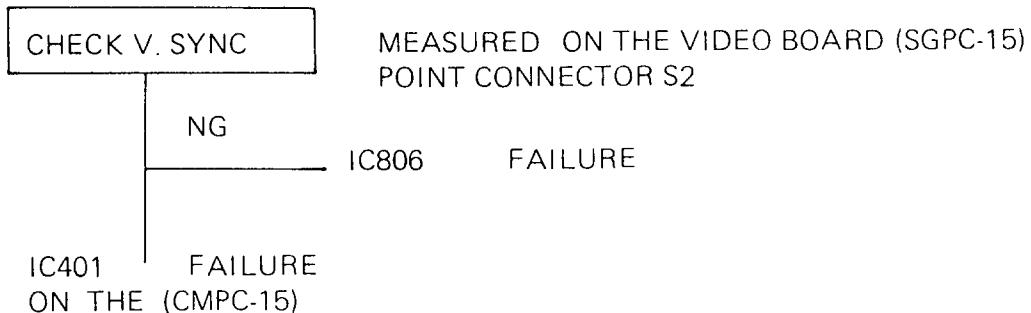


7. UNSTABLE SYNCHRONIZATION

HORIZONTAL

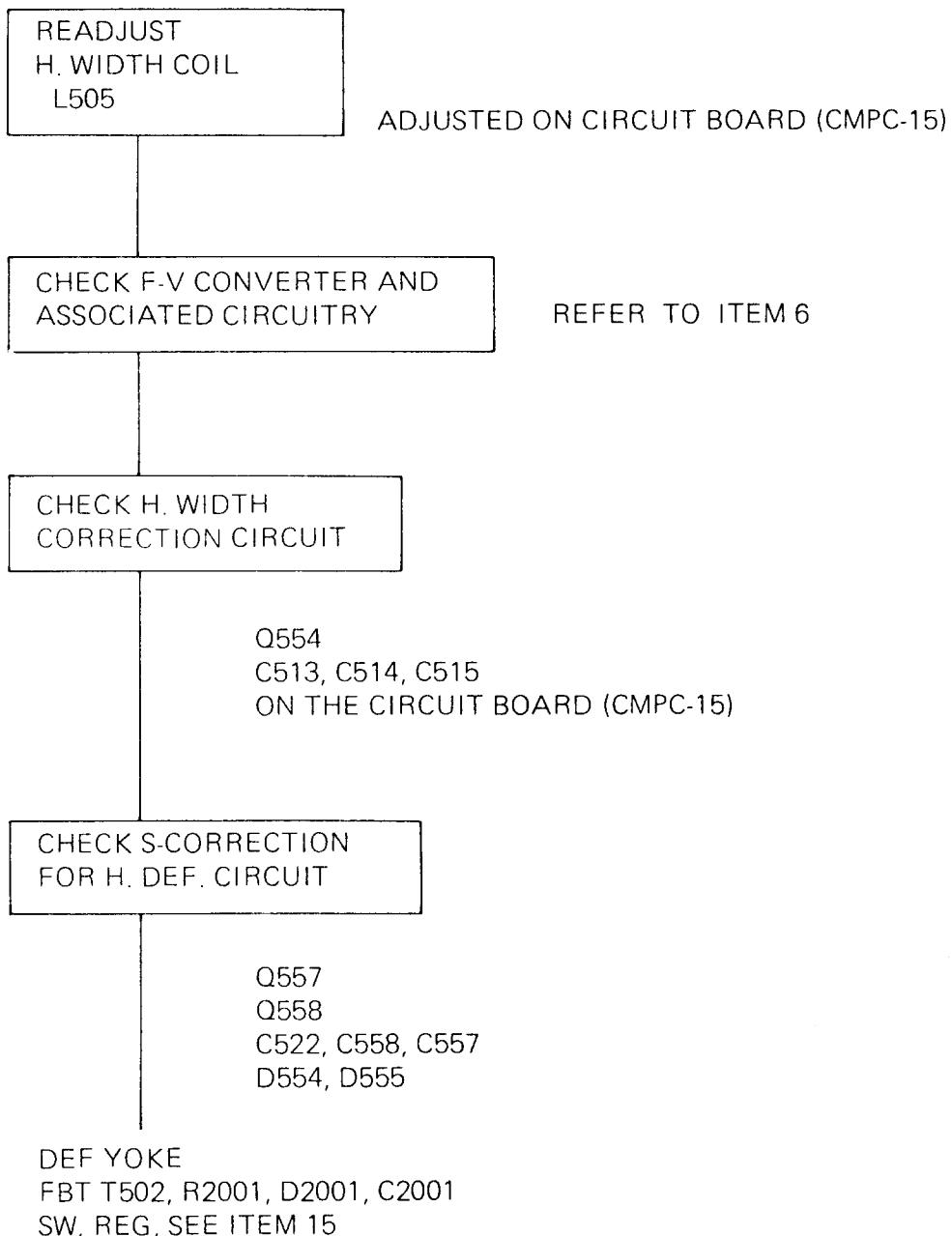


VERTICAL

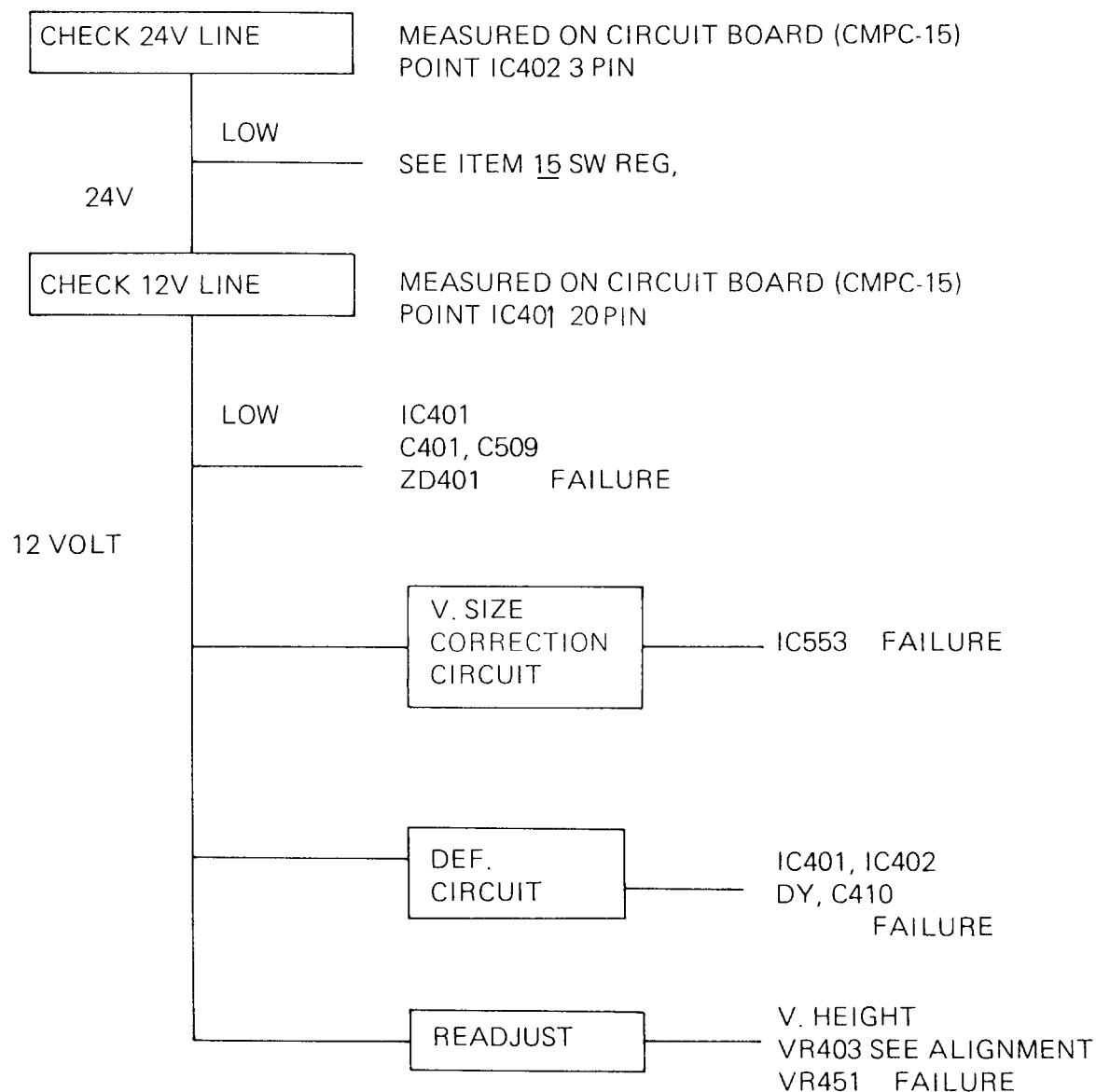


8. PICTURE SIZE

ABNORMAL HORIZONTAL WIDTH



ABNORMAL VERTICAL HEIGHT



9. CENTERING

9-1. HORIZONTAL

a) BACK RASTER CENTERING

CHECK BACK RASTER
CENTERING CIRCUIT

CHECK ON THE CIRCUIT BOARD (CMPC-15)

D470, C470, VR470
CONNECTER H503 FAILURE

b) PICTURE CENTERING

READJUST SUB H CENTERING

SEE ALIGNMENT PROCEDURE

NG

CHECK F-V CONVERTOR AND
ASSOCIATED CIRCUITRY

REFER TO ITEM 6

NG

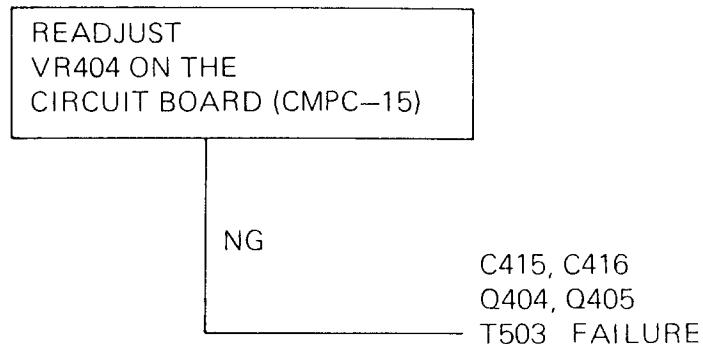
IC401
CONNECTOR L FAILURE

9-2. VERTICAL

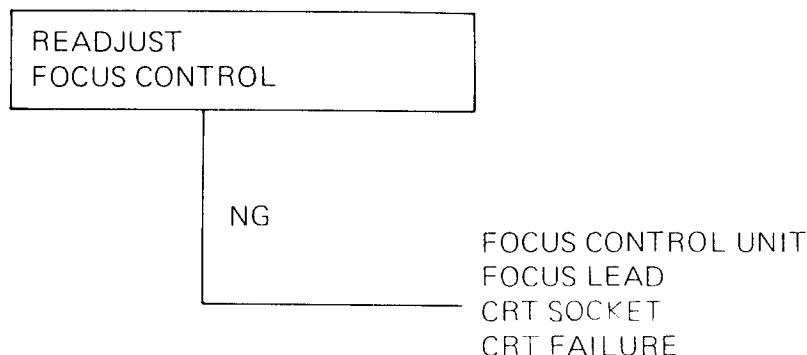
CHECK VERTICAL CENTERING
CIRCUIT

Q402
Q403
R414
D401
D402
D403
CONNECTOR P401, M4 or M5 FAILURE

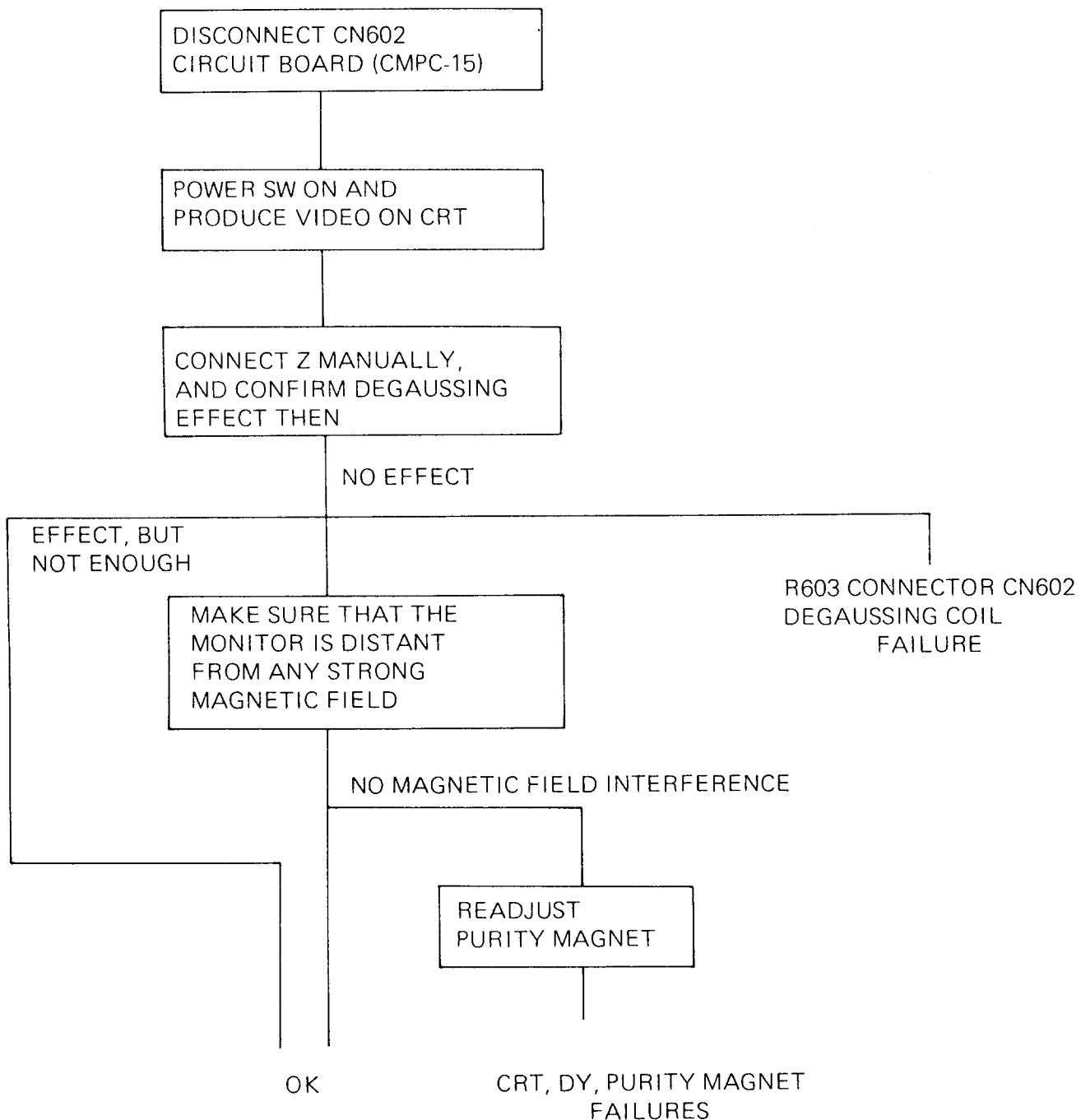
10. SIDE PINCUSHION DISTORTION FAILURE



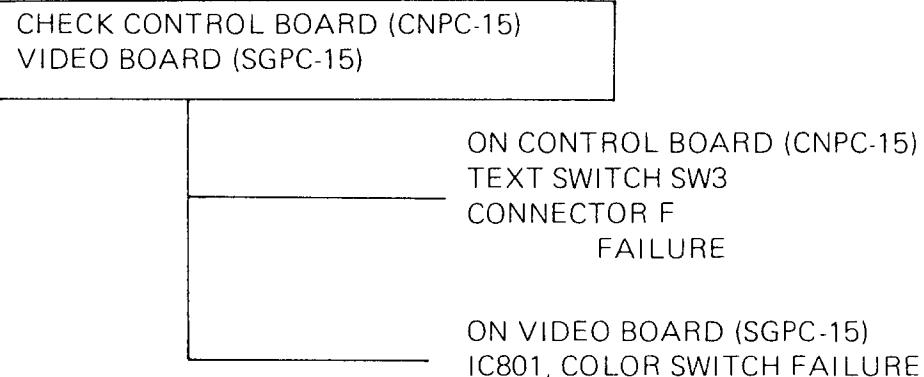
11. POOR FOCUS



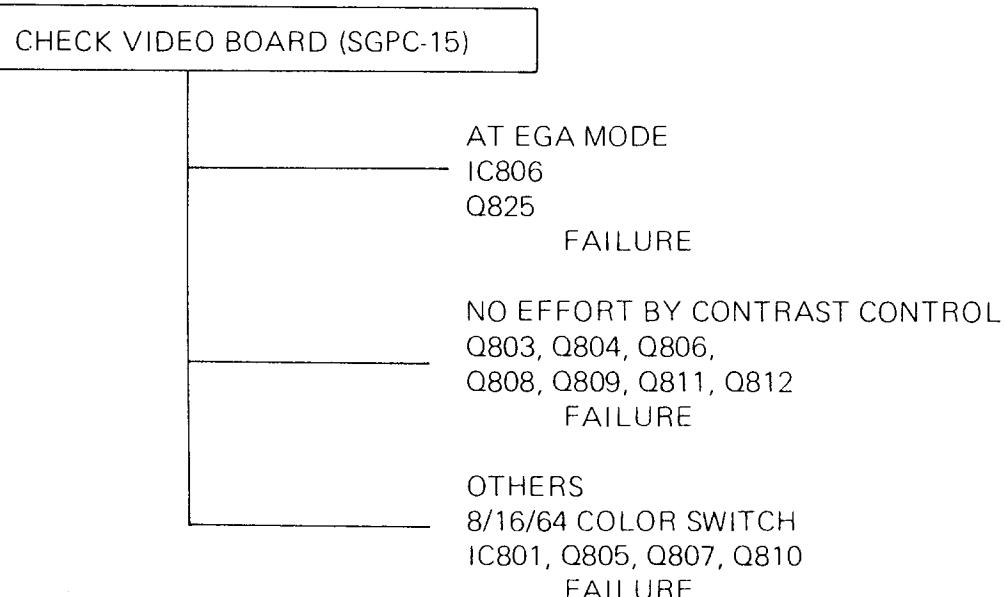
12. IMPURITY ON CRT SCREEN



13. ABNORMAL TEXT MODE OPERATION



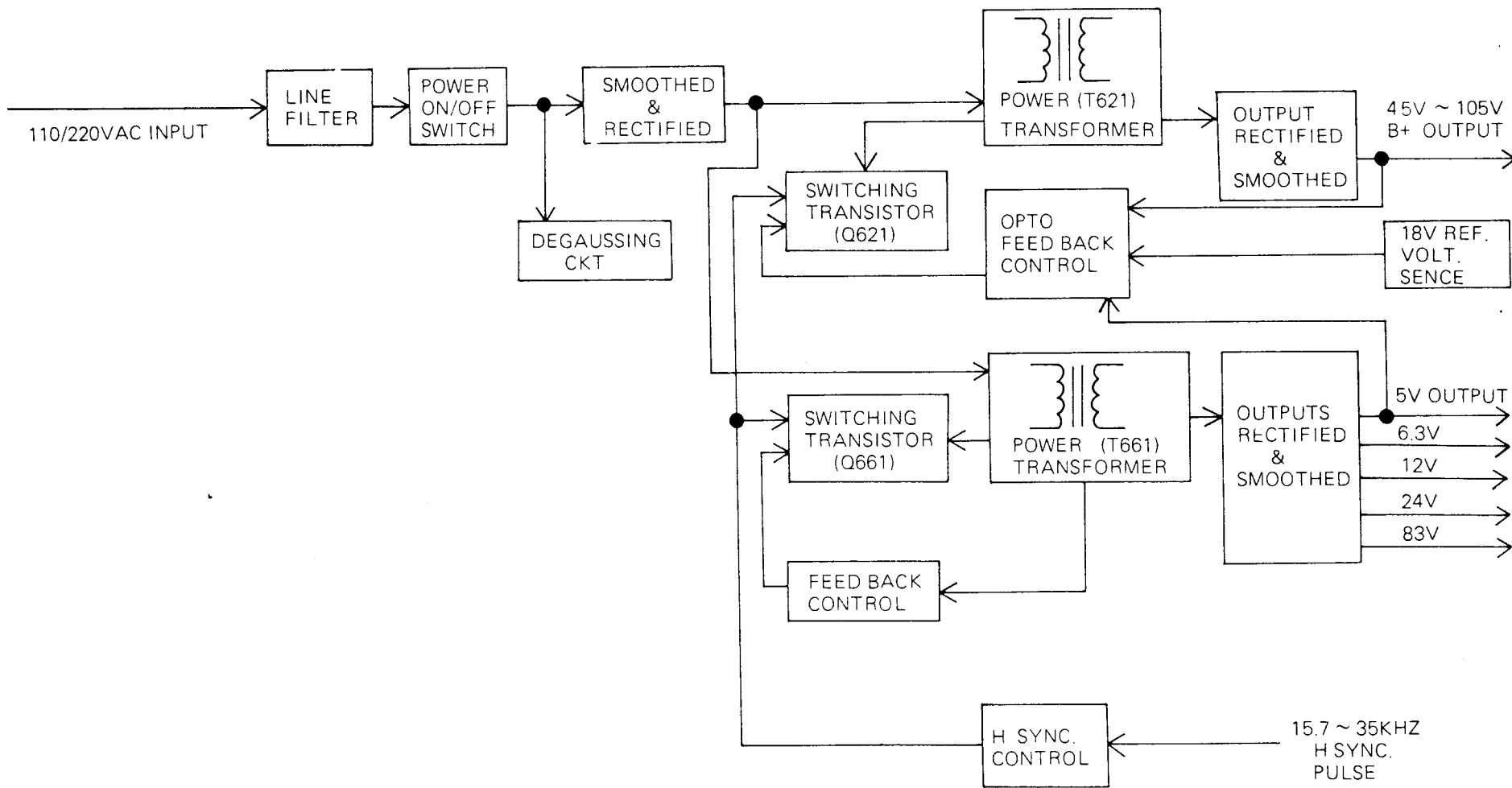
14. ABNORMAL COLOR AT TTL MODE



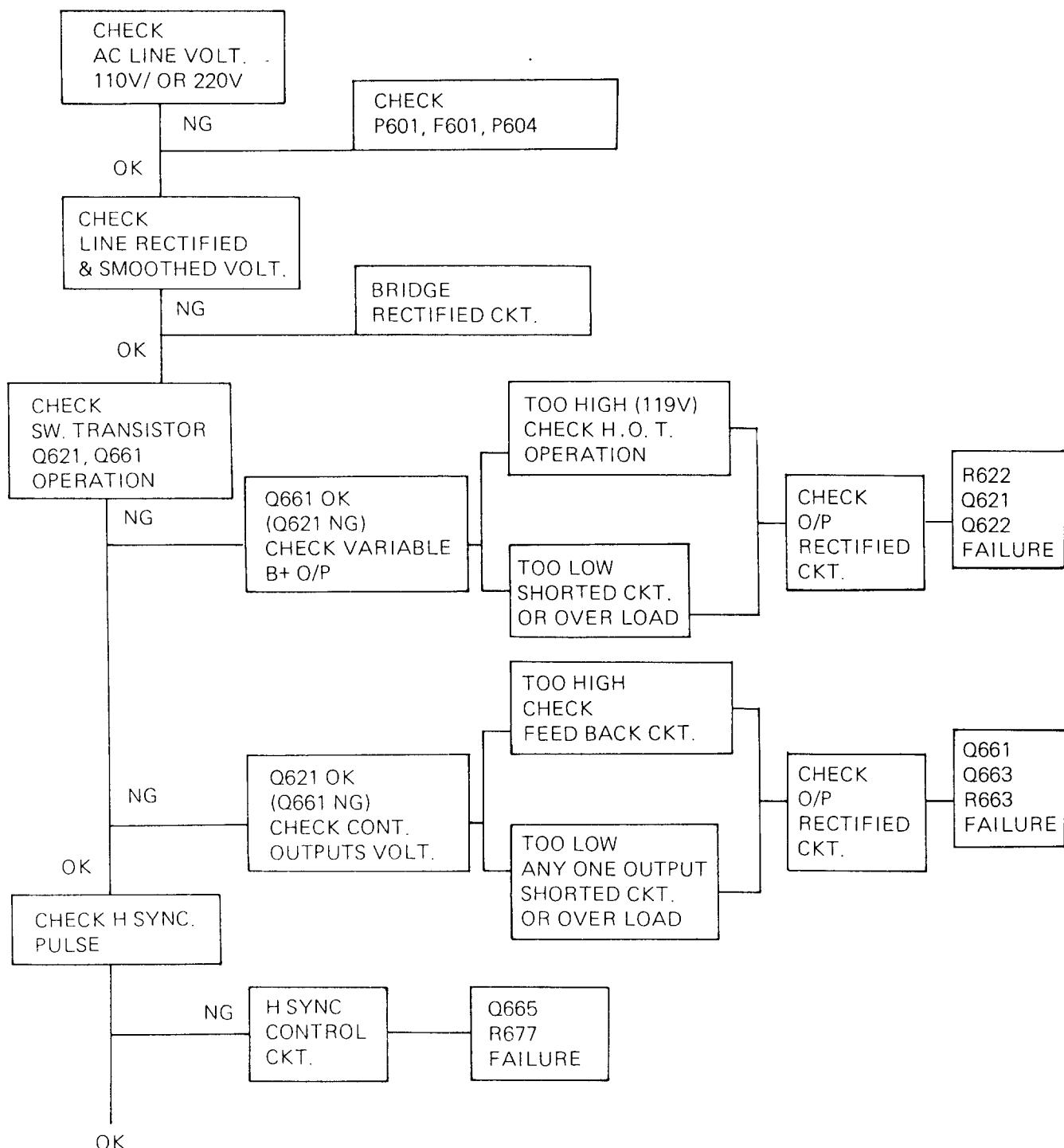
ITEM 15.

1. Before checking SW. ReG. please refer to the power supply block diagram.
2. Power supply output
 - (a) Variable output 45 ~ 105V (depend on H SYNC. freq.)
 - (b) Constant outputs 5V, 6.3V, 12V, 24V, 83V

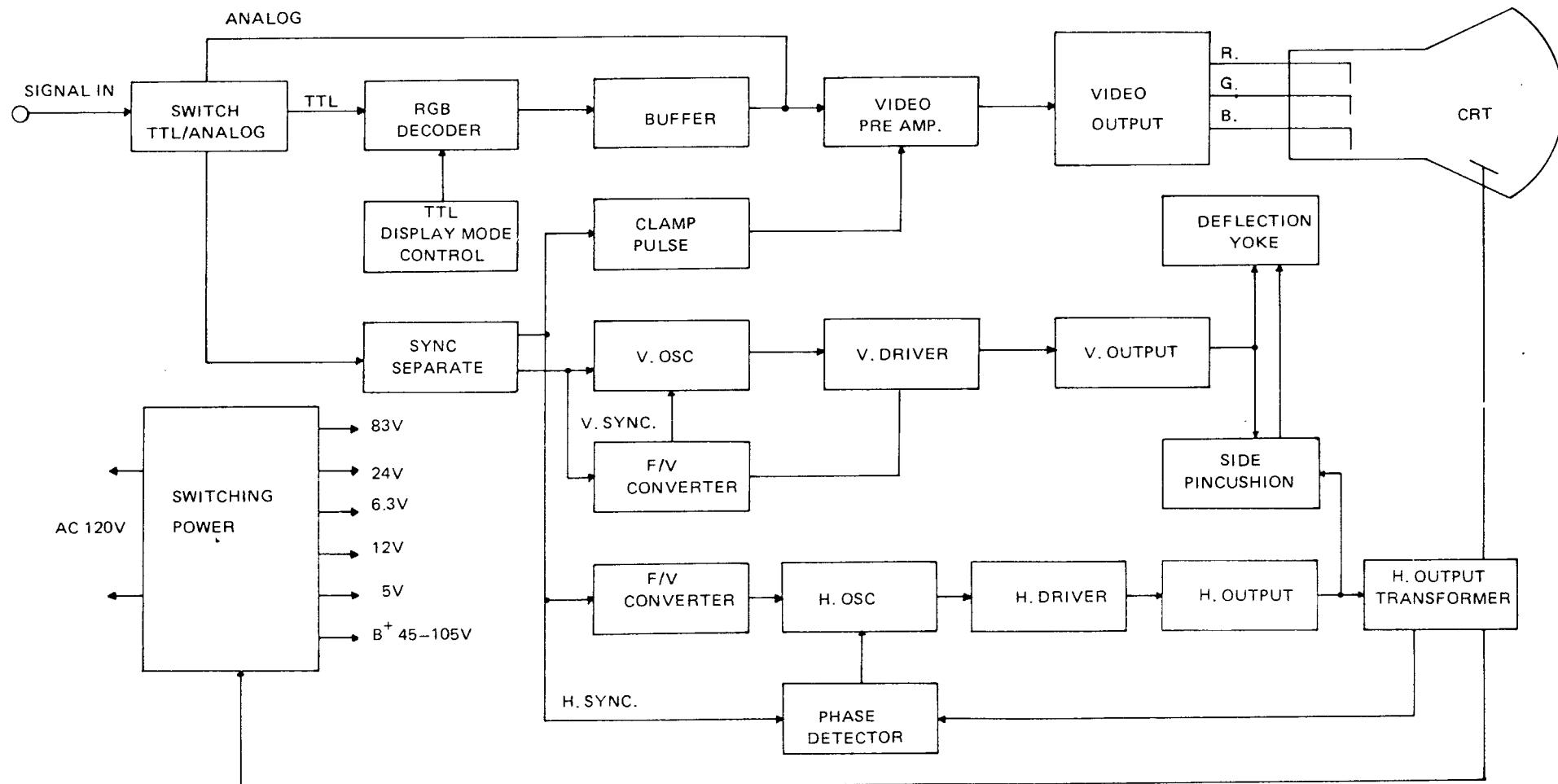
SPPC - 314 (CM-314 POWER SUPPLY) BLOCK DIAGRAM

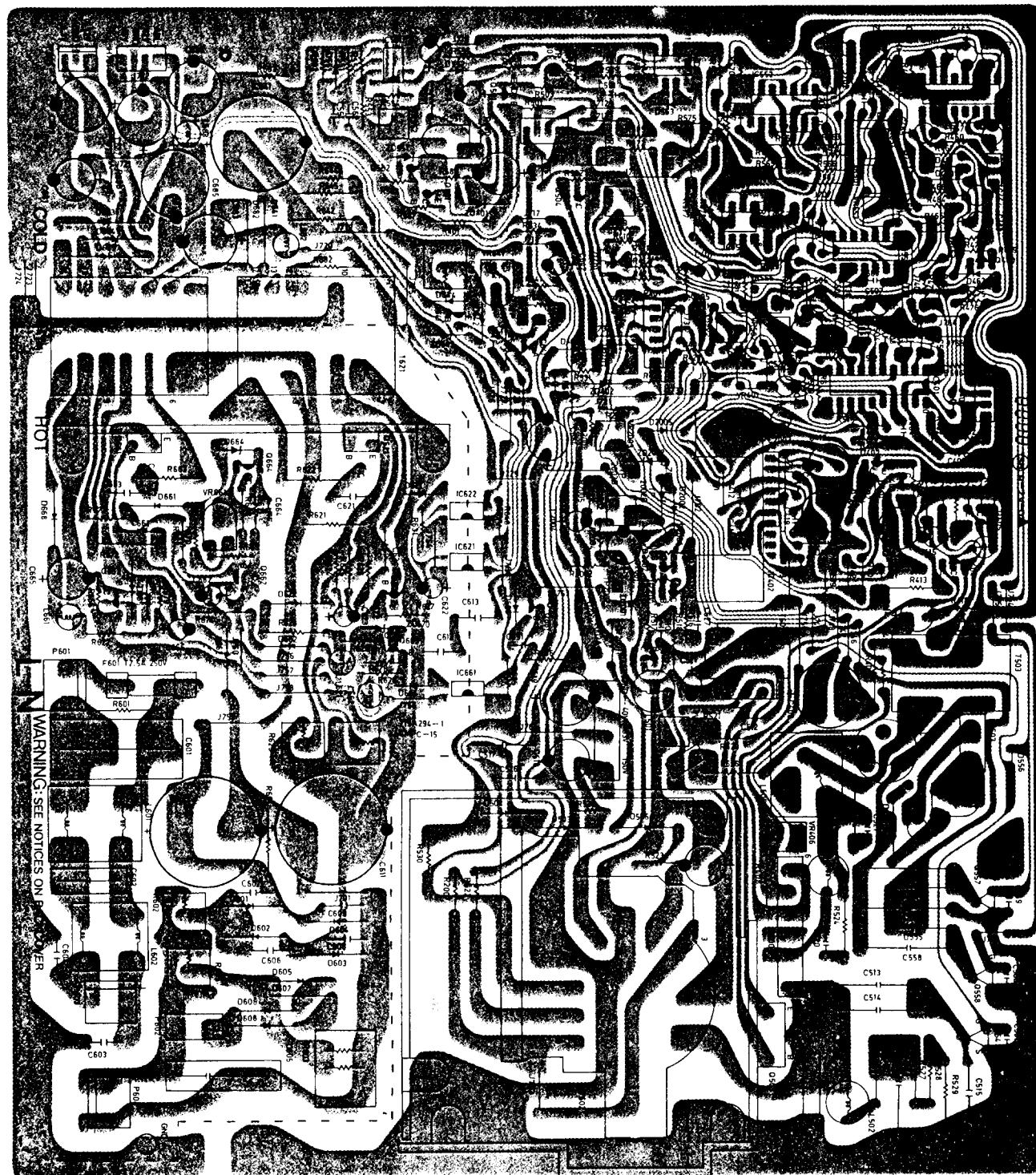


3. Checking flow chart

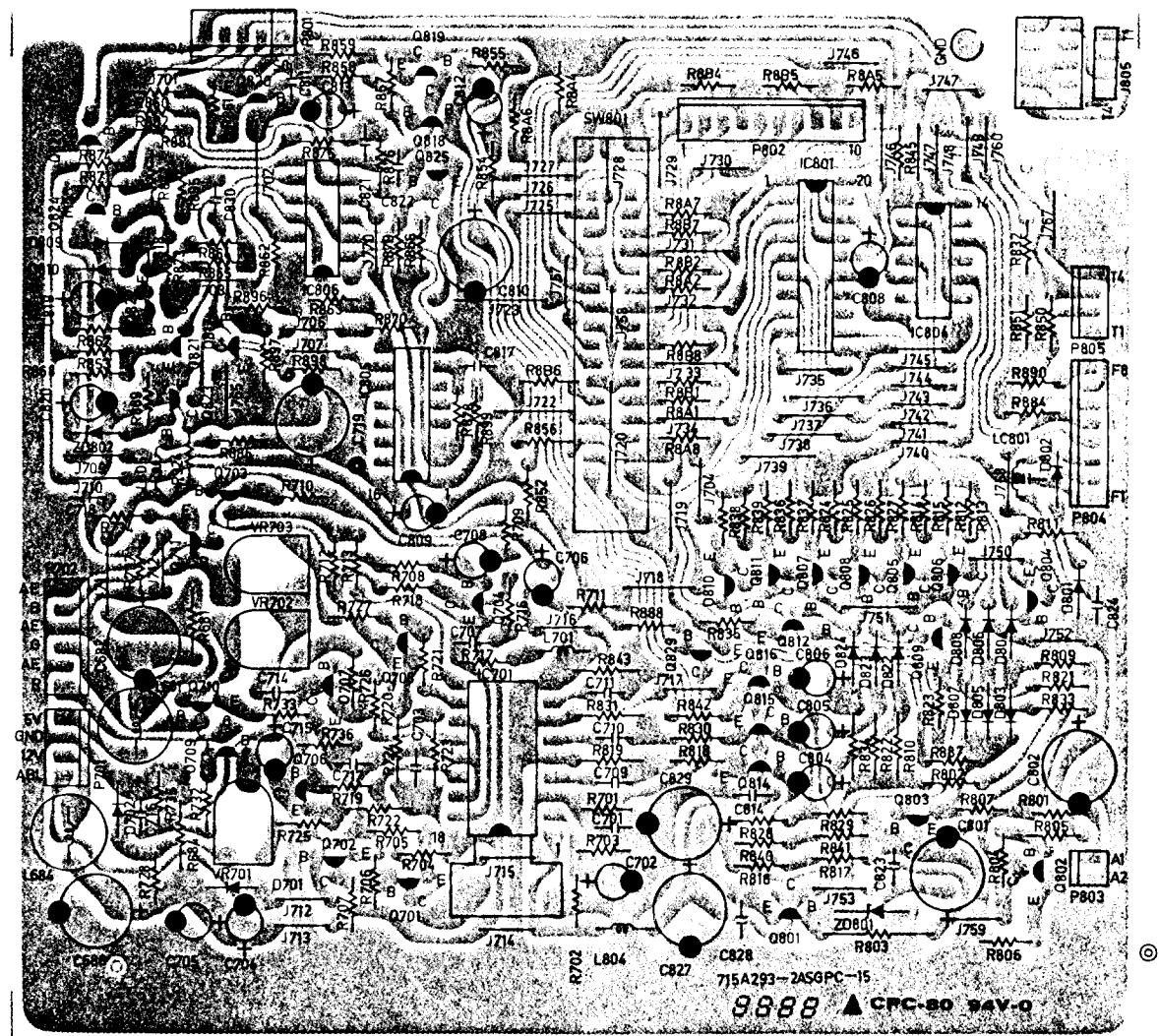


CM-314 BLOCK DIAGRAM

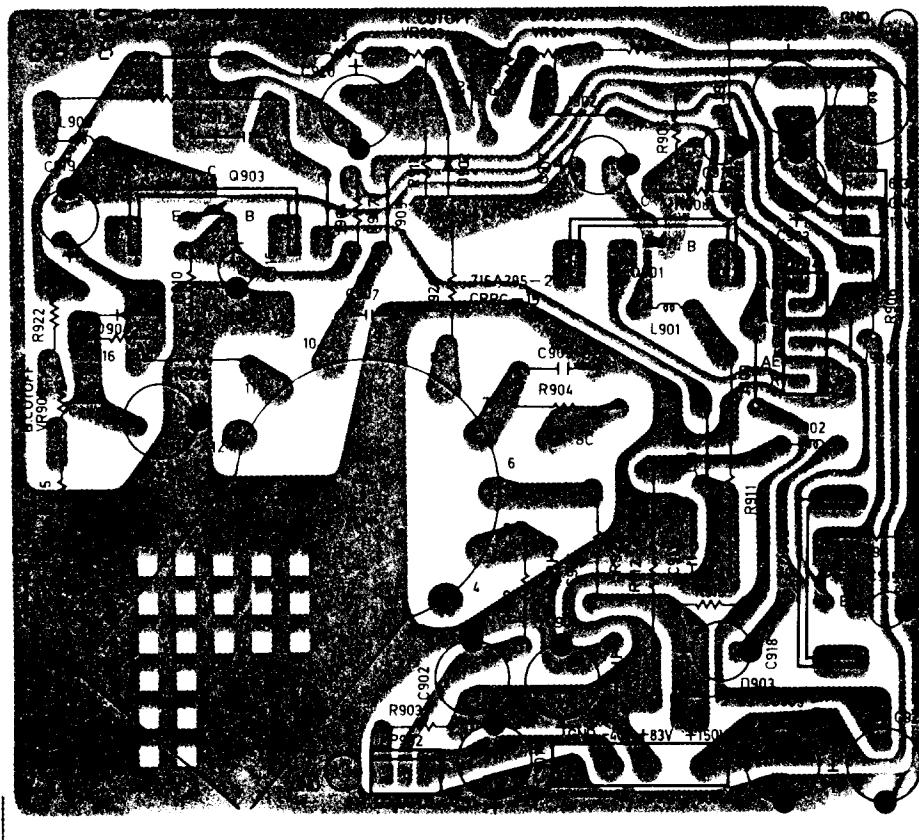




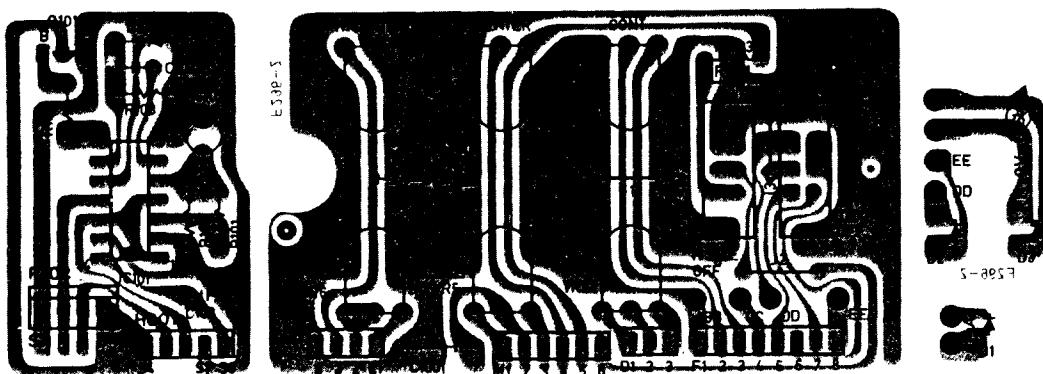
CMPC-15



SGPC-15



CRPC-15



CNPC-15

| MODEL | CTM-3BHB1F (FCC/UL) | CTU-3BHB1 (CSA) | SPECIFICATION |
|-------|------------------------|--------------------|--|
| APPL. | CMC-15F | CMC-15U | CHAS (15-35KHZ AUTO) CHAS (15-35KHZ AUTO) |
| | 1T 421- 4-128 | 1T 421- 4-128 | 3x10 |
| | 1T 421- 9-128 | 1T 421- 9-128 | 4x11 STEEL |
| | 2C 9- 77-128 | 2C 9- 77-128 | STEEL |
| | 2T 208- 1- 47 | 2T 208- 1- 47 | TERNEPLATE |
| | 2C 217- 1-128 | 2C 217- 1-128 | STEEL |
| | 3C 1-115- 47 | 3C 1-115- 47 | 6.2x20.8x2.3 |
| | 4C 1- 97-128 | 4C 1- 97-128 | STEEL |
| | 5B 38- 8- | 5B 38- 8- | RUBBER WASHER |
| | 9B 84- 20- | 9B 84- 20- | STEEL |
| | 9S 301- 5- | 9S 301- 5- | BRASS |
| | 11D 27- 3- | 11D 27- 3- | NYLON |
| | 12A 195- 17- | 12A 195- 17- | CHLOROPRENE |
| | 12T 325- 2- | 12T 325- 2- | RUBBER |
| | 15T5286- 1- | 15T5286- 1- | TERNEPLATE |
| | 15T5286- 2- | 15T5286- 2- | TERNEPLATE |
| | 15T5358- 1- | 15T5358- 1- | ALUMINUM |
| | 15T5439- 1- | 15T5439- 1- | TERNEPLATE |
| | 19B 403- 5- | 19B 403- 5- | STEEL |
| | 19T 522- 1- | 19T 522- 1- | WIRE STEEL |
| | 23T3047- 32- | 23T3047- 32- | ALUMINUM |
| | 26A 500- 1- | 26A 500- 1- | SERIAL CARD (YELLOW) |
| | 33T3292- 1- | 33T3292- 1- | SERIAL CARD |
| | 33T3292- 2- | 33T3292- 2- | A.B.S. PLASTIC |
| | 33T3313- 7- | 33T3313- 7- | A.B.S. PLASTIC |
| | 34E 436- 7- | 34E 436- 7- A | A.B.S. PLASTIC |
| | 34E 437- 10- A | 34E 437- 11- A | A.B.S. PLASTIC |
| | 34E 438- 14- A | 34E 438- 15- A | A.B.S. PLASTIC |
| | 34E 465- 2- A | 34E 465- 1- A | A.B.S. PLASTIC |
| | 40 153- 41- 1 | 40A 153- 3- | A.B.S. PLASTIC |
| | 40 154- 8- | 40A 153- 41- | 13" DHHS WARNING LBL |
| | 40A 155-274- | | LABEL |
| | | 40 154- 8- | WARNING LABEL |
| | | 40A 155-278- | LABEL |
| | | 40A 156- 15- | ID & WARNING LABEL |
| | 40 156- 15- 1 | 40A 575- 17- | LABEL |
| | 40 581-192- | | WARNING LABEL |
| | 40A 590- 16- | 40A 590- 16- | CSA LABEL |
| | 41 51-001- | 41 51-001- | WARNING LABEL |
| | 41A 68- 36- | | LABEL |
| | 41 401-253- 2 | | TRAVELER CARD |
| | 41A 401-253- 3 | 41A 401-253- 3 | WARRANTY STATEMENT |
| | 44T3045- 14- | | OWNER'S MANUAL |
| | 44T3045- 14- A | 44T3045- 14- A | OWNER'S MANUAL |
| | 44T3079- 1- | 44T3079- 1- | 275# "AB" FLUTE |
| | 44T3079- 2- | 44T3079- 2- | E.P.S |
| | 45C 76- 5- | 45C 76- 5- | E.P.S |
| | | | POLY BAG |

| APPL. | CTM-3BHB1F | CTU-3BHB1 | SPECIFICATION |
|-----------------|-----------------|-----------------|----------------------|
| 45C 77- 1- | 45C 77- 1- | 45C 77- 1- | TRANSPARENT SHEET |
| 45C 88- 1- | 45C 88- 1- | 45C 88- 1- | PE |
| 50S 102- 5- | 50S 102- 5- | 50S 102- 5- | PLASTIC |
| 51A 2- 11- | 51A 2- 11- | 51A 2- 11- | HOT MELT GLUE |
| 52D 1-188- | 52D 1-188- | 52D 1-188- | PVC TAPE 8MIL BLK |
| 85T 387- 1- | 85T 387- 1- | 85T 387- 1- | TERNEPLATE |
| 89A 171- 20- | 89A 171- 20- | 89A 171- 20- | POWER CORD |
| 89A 173- 21- | 89A 173- 21- | 89A 173- 21- | CABLE ASS'Y |
| 89A 173- 22- | 89A 173- 22- | 89A 173- 22- | CABLE ASSEMBLY |
| 95A 91-205- 1 | 95A 91-205- 1 | 95A 91-205- 1 | UL1015 & COPPER WIRE |
| 95A 704- 2- | 95A 704- 2- | 95A 704- 2- | WIRE & HOUSING ASSY |
| 96 29- 6-200 | 96 29- 6-200 | 96 29- 6-200 | H.S. TUBING UL/CSA |
| G1S 140- 18-120 | G1S 140- 18-120 | G1S 140- 18-120 | 4MMx18 STEEL |
| K1S 340- 7-128 | K1S 340- 7-128 | K1S 340- 7-128 | M4x7 STEEL |
| K1S 350- 25-128 | K1S 350- 25-128 | K1S 350- 25-128 | M5x25 STEEL |
| K1S 401-805-120 | K1S 401-805-120 | K1S 401-805-120 | #8x5/8 |
| K1S 401-806-128 | K1S 401-806-128 | K1S 401-806-128 | #8x3/4 |
| K1S 404-603-120 | K1S 404-603-120 | K1S 404-603-120 | #6x3/8 |
| 750D1697- 50- | 750D1697- 50- | 750D1697- 50- | DEGAUSSING COIL |
| 750A5100- 4- | 750A5100- 4- | 750A5100- 4- | 14" N. G. 0.31MM CDT |

| APPL. | CNPC-15F | CNPC-15U | SPECIFICATION |
|-------|-----------------|-----------------|----------------------|
| | 1T 421- 4-128 | 1T 421- 4-128 | 3x10 |
| | 32T3029- 2- | 32T3029- 2- | PVC SHEET |
| | 33T3403- 3- | 33T3403- 2- | CONTROL BOARD FRAME |
| | 33T3404- 2- | 33T3404- 2- | A.B.S. PLASTIC |
| | 33T3439- 1- | 33T3439- 1- | A.B.S. PLASTIC |
| | 95 201- 59-042 | 95 201- 59-042 | NYLON |
| | 95A1019-610- 4 | 95A1019-610- 4 | UL1007#22/WHT |
| | 95A1019-610- 6 | 95A1019-610- 6 | UL2464#24/4P HOUSING |
| | 95S1019-611- 8 | 95S1019-611- 8 | UL2464#24/6P HOUSING |
| | 95A1019-612- 3 | 95A1019-612- 3 | UL2468#24/8P HOUSING |
| | 95A1019-613- 5 | 95A1019-613- 5 | UL2464#24/3P HOUSING |
| | 95A1019-615- 2 | 95A1019-615- 2 | UL2464#24/5P HOUSING |
| | 715A 296- 2- | 715A 296- 2- | UL2464#24/2P HOUSING |
| C101 | 67A 301-479- 7 | 67A 301-479- 7 | 50.0x140.0x1.6MM |
| C102 | 64A 177- 13- 58 | 64A 177- 13- 58 | 4.7UF +100-10% 50V |
| C103 | 65A 452-104- 4 | 65A 452-104- 4 | 0.01UF J 50V |
| D1 | 81A 7- 2- | 81A 7- 2- | .1UF +80-20% 16V Z5V |
| D1 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| D101 | 93C 64-11H- | 93C 64-11H- | GREEN LED |
| D102 | 93C 64-11H | 93C 64-11H | DIODE |
| D2 | 81A 7- 2- | 81A 7- 2- | DIOOE |
| D2 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| D3 | 81A 7- 2- | 81A 7- 2- | GREEN LED |
| D3 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| IC101 | 56A74LS- 86- H | 56A74LS 86- H | 14 PIN IC |
| J1 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J2 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J3 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| P102 | 33T3072- 8- | 33T3072- 8- | 4P PLUG PLASTIC |
| Q101 | 57B 419- Q- | 57B 419- Q- | TRANSISTOR |
| R1001 | 61A 602-333- 65 | 61A 602-333- 65 | 33K OHM 5% 1/6W |
| R1003 | 61A 602-153- 65 | 61A 602-153- 65 | 15K OHM 5% 1/6W |
| R101 | 61A 602-222- 65 | 61A 602-222- 65 | 2.2K OHM 5% 1/6W |
| R102 | 61A 602-563- 65 | 61A 602-563- 65 | 56K OHM 5% 1/6W |
| R103 | 61A 602-562- 65 | 61A 602-562- 65 | 5.6K OHM 5% 1/6W |
| R104 | 61A 602-222- 65 | 61A 602-222- 65 | 2.2K OHM 5% 1/6W |
| SW2 | 77A 401- 11- | 77A 401- 11- | SLIDE SW |
| SW3 | 77A 401- 11- | 77A 401- 11- | SLIDE SW |
| VR1 | 75A 346-103- | 75A 346-103- | CONTROL 10KB +-20% |
| VR2 | 75A 346-204- | 75A 346-204- | CONTROL 200KB +-20% |
| VR3 | 75A 346-203- | 75A 346-203- | CONTROL 20KB +-20% |
| VR4 | 75A 346-103- | 75A 346-103- | CONTROL 10KB +-20% |
| VR5 | 75A 346-501- A | 75A 346-501- A | 5000HM +-20% |
| VR6 | 75A 346-204- | 75A 346-204- | CONTROL 200KB +-20% |



| APPL. | CMC-15F | CMC-15U | SPECIFICATION |
|-------|-----------------|-----------------|----------------------|
| | CMPC-15F | CMPC-15F | 14" MANI BOARD |
| | CNPC-15F | CNPC-15U | CONTROL BOARD |
| | CRPC-15 | CRPC-15 | CONTROL BOARD |
| | SGPC-15 | SGPC-15 | CRT SOCKET BRD |
| | 3C 1- 3-106 | 3C 1- 3-106 | SIGNAL BOARD |
| | 3C 1- 40-106 | 3C 1- 40-106 | #6 E.T. |
| | 5B 38- 16- | 5B 38- 16- | LOCK WASHER |
| | 15T5292- 2- | 15T5292- 2- | RUBBER PAD |
| | 15T5399- 1- | 15T5399- 1- | TERNEPLATE |
| | 19T 527- 1- | 19T 527- 1- | TERNEPLATE |
| | 33T3262- 9- | 33T3262- 9- | STEEL WIRE |
| | 40A 581- 26-011 | 40A 581- 26-011 | A.B.S. PLASTIC |
| | 77A 306- 4- | 77A 306- 4- | LABEL/BLANK |
| | 87A 501- 1- | 87A 501- 1- | POWER SW (DPST) |
| | 87A 501- 3- | 87A 501- 3- | 6A 250V AC |
| | 95S207T-354-033 | 95S207T-354-033 | AC SOCKET |
| | 95A3253- 3- 1 | 95A3253- 3- 1 | UL1015#18/GRN, YEL |
| | 95A3253- 3- 2 | 95A3253- 3- 2 | UL1015#20/3P HOUSING |
| | 96 29- 6-200 | 96 29- 6-200 | UL1015#20/3P HOUSING |
| | K1S 404-603-120 | K1S 404-603-120 | H.S. TUBING UL/CSA |
| | M1S 330- 7-128 | M1S 330- 7-128 | #6x3/8 |
| | M1S 440- 6-127 | M1S 440- 6-127 | M3x7 STEEL |
| | 700 99- 42- | 700 99- 42- | M4x6 |
| SW805 | 77A 403- 3- | 77A 403- 3- | AS REQUEST |
| | | | SWITCH |



| APPL. | 700 99- 42- | SPECIFICATION |
|-------|-------------|----------------------|
| | 55C 1- 51- | SOLDER BAR |
| | 55B 1- 56- | 63/37 0.05" (1.27MM) |
| | 55C 23- 13- | KESTER FLUX #933 |
| | 55C 23- 14- | THINNER #108 |

| APPL. | CRPC-15 | SPECIFICATION |
|-------|-----------------|----------------------|
| | 1T 420- 3-128 | 3MMx8 STEEL |
| | 87A 400- 1- | CRT SOCKET |
| | 95A1019-608- 3 | UL2468#24/WHTx3C |
| | 95A1019-608- 6 | UL2464#24/6P HOUSING |
| | 715A 295- 3- | 122.0x110.0x1.6MM |
| C690 | 67S 201-471- 2 | 470UF +100-10% 10V |
| C901 | 67S 201-100- 10 | 10UF +100-10% 160V |
| C902 | 67A 201-109- 13 | 1UF +100-10% 350V |
| C903 | 67A 301-101- 3 | 100UF +100-10% 15V |
| C904 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C905 | 67S 201-100- 11 | 10UF 200V |
| C906 | 65A517K-102- 2A | 0.001UF 500V Z5U |
| C907 | 65S 450-103- 3 | 10000PF 50V Z5U |
| C909 | 65A 2M-103- 3B | 0.01UF 2KV 20% Z5U |
| C910 | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C911 | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C912 | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C913 | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C914 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C915 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C916 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C917 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C918 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C919 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C920 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C921 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C922 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| D902 | 93C 60- 38- | 1A 200V |
| D903 | 93C 60- 38- | 1A 200V |
| D904 | 93C 60- 38- | 1A 200V |
| J901 | 95S 90- 22- | #22 TIN COATED |
| J902 | 95S 90- 22- | #22 TIN COATED |
| J903 | 95S 90- 22- | #22 TIN COATED |
| J904 | 95S 90- 22- | #22 TIN COATED |
| J905 | 95S 90- 22- | #22 TIN COATED |
| J906 | 95S 90- 22- | #22 TIN COATED |
| J907 | 95S 90- 22- | #22 TIN COATED |
| J908 | 95S 90- 22- | #22 TIN COATED |
| J909 | 95S 90- 22- | #22 TIN COATED |
| J910 | 95S 90- 22- | #22 TIN COATED |
| J911 | 95S 90- 22- | #22 TIN COATED |
| L685 | 73C 259- 2- | 30UH +/-15% |
| L901 | 73C 145-479- | 4.7UF +-10% |
| L902 | 73C 145-479- | 4.7UH +-10% |
| L903 | 73C 145-479 | 4.7UH +-10% |
| Q901 | 57A 545- 1- | TRANSISTOR |
| Q901 | 90T 185- 1- | ALUMINUM |
| Q902 | 57A 545- 1- | TRANSISTOR |
| Q902 | 90T 185- 1- | ALUMINUM |
| Q903 | 57A 545- 1- | TRANSISTOR |
| Q903 | 90T 185- 1- | ALUMINUM |
| R902 | 33T3072- 12- | 3P PLUG PLASTIC |
| R902 | 61S 175-332- 64 | 3K3 OHM 5% 1/2W |
| R903 | 61S 172-564- 57 | 560K OHM 5% 1/4W |

| APPL. | CRPC-15 | SPECIFICATION |
|-------|-----------------|------------------|
| R904 | 61S 175-333- 64 | 33K OHM 5% 1/2W |
| R905 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R906 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R907 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R908 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R909 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R910 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R911 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R912 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R913 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R914 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R915 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R916 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R920 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R921 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R922 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R923 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R924 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R925 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R926 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| R927 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| R928 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| VR903 | 75A 325-503- | 50K OHM +−20% |
| VR904 | 75A 325-503- | 50K OHM +−20% |
| VR905 | 75A 325-503- | 50K OHM +−20% |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|-----------------|----------------|--------------|-----------------------|
| | SGPC-AI | SGPC-15 | | SIGNAL BOARD |
| | 9S 203- 8- | 9S 203- 8- | | AUTO INSERTION |
| | 15T5400- 2- | | | BRASS |
| | 95A1019-617- 4 | | 52D 1-191- | BRACKET |
| | M1S 330- 6-120 | | 52D 1-192- | GLASS CLOTH |
| | | | 715A 293- 3- | GLASS CLOTH |
| C682 | 67S 201-471- 1 | | | UL2464 #24/4P HOUSING |
| C688 | 67S 201-221- 3 | | | 3MMx6 STEEL |
| C701 | 65A 452-104- 4 | | | 138.0x150.0x1.6MM |
| C702 | 67A 301-100- 7 | | | 470UF +100-10% 6.3V |
| C703 | 65S 450-103- 3 | | | 220UF +100-10% 15V |
| C704 | 67A 301-479- 7 | | | .1UF +80-20% 16V Z5V |
| C705 | 67A 301-470- 3 | | | 10UF +100-10% 50V |
| C706 | 67A 301-109- 7 | | | 10000PF 50V Z5U |
| C707 | 65S 444-471- 1 | | | 4.7UF +100-10% 50V |
| C708 | 67A 301-109- 7 | | | 47UF +100-10% 50V |
| C709 | 64A 177- 17- 58 | | | 1UF +100-10% 50V |
| C710 | 64A 177- 17- 58 | | | 0.022UF J 50V |
| C711 | 64A 177- 17- 58 | | | 0.022UF J 50V |
| C714 | 65A 452-104- 4 | | | 0.022UF J 50V |
| C715 | 67A 301-100- 7 | | | .1UF +80-20% 16V Z5V |
| C716 | 65S 444-102- 1 | | | 10UF +100-10% 50V |
| C717 | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C718 | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C801 | 67A 301-101- 3 | | | 1000PF K Z5P 50V |
| C802 | 67A 301-101- 3 | | | 100UF +100-10% 15V |
| C804 | 67A 301-470- 3 | | | 100UF +100-10% 15V |
| C805 | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C806 | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C808 | 67A 301-229- 7 | | | 2.2UF +100-10% 50V |
| C809 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C810 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C812 | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C813 | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C814 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C817 | 64A 177- 1- 58 | | | 0.001UF J 50V |
| C818 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C819 | 67A 301-109- 7 | | | 1UF +100-10% 50V |
| C820 | 67A 301-229- 7 | | | 2.2UF +100-10% 50V |
| C821 | 64A 177- 3- 58 | | | 0.0015UF J 50V |
| C822 | 64A 177- 1- 58 | | | 0.001UF J 50V |
| C823 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C824 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C827 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C828 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C829 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C830 | 65S 442-120- 1 | | | 12PF J NPO 50V |
| D701 | | 93C 64-11H-52T | | DIODE |
| D702 | | 93C 64-11H-52T | | DIODE |
| D801 | | 93C 64-11H-52T | | DIODE |
| D802 | | 93C 64-11H-52T | | DIODE |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|----------------|---------------|----------------|---------------|
| D803 | | | 93C 64-11H-52T | DIODE |
| D804 | | | 93C 64-11H-52T | DIODE |
| D805 | | | 93C 64-11H-52T | DIODE |
| D806 | | | 93C 64-11H-52T | DIODE |
| D807 | | | 93C 64-11H-52T | DIODE |
| D808 | | | 93C 64-11H-52T | DIODE |
| D809 | | | 93C 64-11H-52T | DIODE |
| D810 | | | 93C 64-11H-52T | DIODE |
| D822 | | | 93C 64-11H-52T | DIODE |
| D823 | | | 93C 64-11H-52T | DIODE |
| D824 | | | 93C 64-11H-52T | DIODE |
| IC701 | 56A 330- 1- | | | 18 PIN IC |
| IC801 | 56A 74S-473- | | | 20 PIN IC |
| IC804 | 56A 308- 1- H | | | 14 PIN IC |
| IC805 | 56A74LS-123- H | | | 16 PIN IC |
| IC805 | 56A74LS-123- M | | | 16 PIN IC |
| IC805 | 56A74LS-123- T | | | 16 PIN IC |
| IC806 | 56A74LS-136- H | | | 14 PIN IC |
| IC806 | 56A74LS-136- M | | | 14 PIN IC |
| IC806 | 56A74LS-136- T | | | 14 PIN IC |
| J701 | | 95S 90- 23- A | | TIN COATED |
| J702 | | 95S 90- 23- A | | TIN COATED |
| J703 | | 95S 90- 23- A | | TIN COATED |
| J704 | | 95S 90- 23- A | | TIN COATED |
| J705 | | 95S 90- 23- A | | TIN COATED |
| J707 | | 95S 90- 23- A | | TIN COATED |
| J709 | | 95S 90- 23- A | | TIN COATED |
| J710 | | 95S 90- 23- A | | TIN COATED |
| J711 | | 95S 90- 23- A | | TIN COATED |
| J712 | | 95S 90- 23- A | | TIN COATED |
| J713 | | 95S 90- 23- A | | TIN COATED |
| J714 | | 95S 90- 23- A | | TIN COATED |
| J715 | | 95S 90- 23- A | | TIN COATED |
| J716 | | 95S 90- 23- A | | TIN COATED |
| J717 | | 95S 90- 23- A | | TIN COATED |
| J718 | | 95S 90- 23- A | | TIN COATED |
| J719 | | 95S 90- 23- A | | TIN COATED |
| J720 | | 95S 90- 23- A | | TIN COATED |
| J722 | | 95S 90- 23- A | | TIN COATED |
| J723 | | 95S 90- 23- A | | TIN COATED |
| J725 | | 95S 90- 23- A | | TIN COATED |
| J726 | | 95S 90- 23- A | | TIN COATED |
| J727 | | 95S 90- 23- A | | TIN COATED |
| J728 | | 95S 90- 23- A | | TIN COATED |
| J729 | | 95S 90- 23- A | | TIN COATED |
| J730 | | 95S 90- 23- A | | TIN COATED |
| J731 | | 95S 90- 23- A | | TIN COATED |
| J732 | | 95S 90- 23- A | | TIN COATED |
| J733 | | 95S 90- 23- A | | TIN COATED |
| J734 | | 95S 90- 23- A | | TIN COATED |
| J735 | | 95S 90- 23- A | | TIN COATED |
| J736 | | 95S 90- 23- A | | TIN COATED |
| J737 | | 95S 90- 23- A | | TIN COATED |
| J738 | | 95S 90- 23- A | | TIN COATED |
| J739 | | 95S 90- 23- A | | TIN COATED |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|--------------|----------|---------------|----------------------|
| J740 | | | 95S 90- 23- A | TIN COATED |
| J741 | | | 95S 90- 23- A | TIN COATED |
| J742 | | | 95S 90- 23- A | TIN COATED |
| J743 | | | 95S 90- 23- A | TIN COATED |
| J744 | | | 95S 90- 23- A | TIN COATED |
| J745 | | | 95S 90- 23- A | TIN COATED |
| J746 | | | 95S 90- 23- A | TIN COATED |
| J747 | | | 95S 90- 23- A | TIN COATED |
| J748 | | | 95S 90- 23- A | TIN COATED |
| J749 | | | 95S 90- 23- A | TIN COATED |
| J750 | | | 95S 90- 23- A | TIN COATED |
| J751 | | | 95S 90- 23- A | TIN COATED |
| J752 | | | 95S 90- 23- A | TIN COATED |
| J753 | | | 95S 90- 23- A | TIN COATED |
| J757 | | | 95S 90- 23- A | TIN COATED |
| J758 | | | 95S 90- 23- A | TIN COATED |
| J759 | | | 95S 90- 23- A | TIN COATED |
| J760 | | | 95S 90- 23- A | TIN COATED |
| J765 | | | 95S 90- 23- A | TIN COATED |
| J767 | | | 95S 90- 23- A | TIN COATED |
| J770 | | | 95S 90- 23- A | TIN COATED |
| L681 | 73C 259- 2- | | | 30UH +/-15% |
| L684 | 73C 259- 2- | | | 30UH +/-15% |
| L804 | 73C 145-569- | | | 5.6UH +/-10% |
| L805 | 73C 145-569- | | | 5.6UH +/-10% |
| LC801 | 53A 40- 1- | | | .022UF +50-20 50V 7A |
| P701 | 33T3072- 8- | | | 4P PLUG PLASTIC |
| P702 | 33T3072- 2- | | | 6P PLUG PLASTIC |
| P801 | 33T3072- 14- | | | 5P PLUG PLASTIC |
| P802 | 33A3072- 20- | | | 10P PLUG PLASTIC |
| P803 | 33T3072- 16- | | | 2P PLUG |
| P804 | 33T3072- 10- | | | 8P PLUG PLASTIC |
| P805 | 33T3072- 8- | | | 4P PLUG PLASTIC |
| Q701 | 57B 419- Q- | | | TRANSISTOR |
| Q702 | 57A 420- Q- | | | TRANSISTOR |
| Q703 | 57A 420- Q- | | | TRANSISTOR |
| Q704 | 57A 420- Q- | | | TRANSISTOR |
| Q706 | 57A 420- Q- | | | TRANSISTOR |
| Q707 | 57A 420- Q- | | | TRANSISTOR |
| Q708 | 57A 420- Q- | | | TRANSISTOR |
| Q709 | 57B 419- Q- | | | TRANSISTOR |
| Q710 | 57B 419- Q- | | | TRANSISTOR |
| Q711 | 57B 419- Q- | | | TRANSISTOR |
| Q801 | 57A 431- 3- | | | TRANSISTOR |
| Q802 | 57B 419- P- | | | TRANSISTOR |
| Q803 | 57B 420- P- | | | TRANSISTOR |
| Q804 | 57B 419- Q- | | | TRANSISTOR |
| Q805 | 57B 419- Q- | | | TRANSISTOR |
| Q806 | 57B 419- Q- | | | TRANSISTOR |
| Q807 | 57B 419- Q- | | | TRANSISTOR |
| Q808 | 57B 419- Q- | | | TRANSISTOR |
| Q809 | 57B 419- Q- | | | TRANSISTOR |
| Q810 | 57B 419- Q- | | | TRANSISTOR |
| Q811 | 57B 419- Q- | | | TRANSISTOR |
| Q812 | 57B 419- Q- | | | TRANSISTOR |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|-------------|-----------------|---------|-------------------|
| Q814 | 57B 419- Q- | | | TRANSISTOR |
| Q815 | 57B 419- Q- | | | TRANSISTOR |
| Q816 | 57B 419- Q- | | | TRANSISTOR |
| Q817 | 57B 419- P- | | | TRANSISTOR |
| Q818 | 57B 419- P- | | | TRANSISTOR |
| Q819 | 57B 419- P- | | | TRANSISTOR |
| Q820 | 57B 419- P- | | | TRANSISTOR |
| Q821 | 57B 419- P- | | | TRANSISTOR |
| Q822 | 57B 419- P- | | | TRANSISTOR |
| Q823 | 57B 419- P- | | | TRANSISTOR |
| Q824 | 57B 419- P- | | | TRANSISTOR |
| Q825 | 57B 419- P- | | | TRANSISTOR |
| Q828 | 57B 419- P- | | | TRANSISTOR |
| Q829 | 57B 419- P- | | | TRANSISTOR |
| R681 | | 61S 172-102-52T | | 1K OHM 5% 1/4W |
| R684 | | 61S 172-102-52T | | 1K OHM 5% 1/4W |
| R701 | | 61S 602-103-52T | | 10K OHM 5% 1/6W |
| R702 | | 61S 602-563-52T | | 56K OHM +5% 1/6W |
| R703 | | 61A 602-223-52T | | 22K OHM 5% 1/6W |
| R704 | | 61A 602-272-52T | | 2.7K OHM 5% 1/6W |
| R705 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R706 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |
| R707 | | 61A 602-222-52T | | 2.2K OHM +5% 1/6W |
| R708 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R709 | | 61S 602-221-52T | | 220 OHM +5% 1/6W |
| R710 | | 61S 602-103-52T | | 10K OHM 5% 1/6W |
| R711 | | 61S 602-221-52T | | 220 OHM +5% 1/6W |
| R712 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R713 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R716 | | 61S 602-221-52T | | 220 OHM +5% 1/6W |
| R718 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R719 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R720 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R721 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R722 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R723 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R724 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R725 | | 93C 64-11H-52T | | DIODE |
| R726 | | 93C 64-11H-52T | | DIODE |
| R727 | | 93C 64-11H-52T | | DIODE |
| R728 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R732 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R733 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R734 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R735 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R736 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R737 | | 61S 602-120-52T | | 12 OHM +5% 1/6W |
| R801 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R802 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R803 | | 61S 175-751-52T | | 750 OHM +5% 1/2W |
| R804 | | 61A 602-222-52T | | 2.2K OHM +5% 1/6W |
| R805 | | 61A 602-222-52T | | 2.2K OHM +5% 1/6W |
| R806 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |
| R807 | | 61A 602-392-52T | | 3.9K OHM 5% 1/6W |
| R809 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|---------|-----------------|---------|--------------------|
| R810 | | 61S 172-151-52T | | 150 OHM 5% 1/4W |
| R811 | | 61S 602-751-52T | | 750 OHM +−5% 1/6W |
| R812 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R813 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R814 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R815 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R816 | | 61A 602-822-52T | | 8.2K OHM +−5% 1/6W |
| R817 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R818 | | 61S 602-111-52T | | 110 OHM +−5% 1/6W |
| R819 | | 61S 172-820-52T | | 82 OHM +−5% 1/4W |
| R821 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |
| R822 | | 61S 172-151-52T | | 150 OHM 5% 1/4W |
| R823 | | 61A 602-751-52T | | 750 OHM +−5% 1/6W |
| R824 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R825 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R826 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R827 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R828 | | 61A 602-822-52T | | 8.2K OHM +−5% 1/6W |
| R829 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R830 | | 61S 602-111-52T | | 110 OHM +−5% 1/6W |
| R831 | | 61S 172-820-52T | | 82 OHM +−5% 1/4W |
| R832 | | 61A 602-222-52T | | 2.2K OHM +−5% 1/6W |
| R833 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |
| R834 | | 61S 172-151-52T | | 150 OHM 5% 1/4W |
| R835 | | 61S 602-751-52T | | 750 OHM +−5% 1/6W |
| R836 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R837 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R838 | | 61A 602-681-52T | | 680 OHM +−5% 1/6W |
| R839 | | 61S 602-152-52T | | 1.5K OHM +−5% 1/6W |
| R840 | | 61A 602-822-52T | | 8.2K OHM +−5% 1/6W |
| R841 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R842 | | 61S 602-111-52T | | 110 OHM +−5% 1/6W |
| R843 | | 61S 172-820-52T | | 82 OHM +−5% 1/4W |
| R845 | | 61A 602-561-52T | | 560 OHM +−5% 1/6W |
| R850 | | 61A 602-562-52T | | 5.6K OHM 5% 1/6W |
| R851 | | 61A 602-562-52T | | 5.6K OHM 5% 1/6W |
| R852 | | 61S 602-471-52T | | 470 OHM +−5% 1/6W |
| R853 | | 61A 602-272-52T | | 2.7K OHM 5% 1/6W |
| R854 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R855 | | 61A 602-823-52T | | 82K OHM +−5% 1/6W |
| R856 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R857 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R858 | | 61S 602-221-52T | | 220 OHM +−5% 1/6W |
| R859 | | 61A 602-222-52T | | 2.2K OHM +−5% 1/6W |
| R860 | | 61S 602-563-52T | | 56K OHM +−5% 1/6W |
| R861 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R862 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R863 | | 61A 602-222-52T | | 2.2K OHM +−5% 1/6W |
| R864 | | 61A 602-331-52T | | 330 OHM 5% 1/6W |
| R865 | | 61A 602-822-52T | | 8.2K OHM +−5% 1/6W |
| R866 | | 61A 602-222-52T | | 2.2K OHM +−5% 1/6W |
| R867 | | 61A 602-272-52T | | 2.7K OHM 5% 1/6W |
| R868 | | 61A 602-123-52T | | 12K OHM 5% 1/6W |
| R869 | | 61A 602-562-52T | | 5.6K OHM 5% 1/6W |
| R870 | | 61A 602-562-52T | | 5.6K OHM 5% 1/6W |

| APPL. | SGPC-15 | SGPC-15F | SGPC-AI | SPECIFICATION |
|-------|--------------|----------|-----------------|--------------------|
| R871 | | | 61A 602-222-52T | 2.2K OHM +–5% 1/6W |
| R872 | | | 61A 602-822-52T | 8.2K OHM +–5% 1/6W |
| R873 | | | 61A 602-822-52T | 8.2K OHM +–5% 1/6W |
| R874 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R875 | | | 61A 602-103-52T | 10K OHM 5% 1/6W |
| R876 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R878 | | | 61A 602-222-52T | 2.2K OHM +–5% 1/6W |
| R879 | | | 61A 602-222-52T | 2.2K OHM +–5% 1/6W |
| R881 | | | 61A 602-222-52T | 2.2K OHM +–5% 1/6W |
| R882 | | | 61A 602-331-52T | 330K OHM +–5% 1/6W |
| R884 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R886 | | | 61S 602-109-52T | 10HM +–5% 1/6W |
| R887 | | | 61A 602-392-52T | 3.9K OHM 5% 1/6W |
| R888 | | | 61S 602-122-52T | 1.2K OHM +5% 1/6W |
| R890 | | | 61A 602-511-52T | 510 OHM +–5% 1/6W |
| R895 | | | 61A 602-822-52T | 8.2K OHM +–5% 1/6W |
| R896 | | | 61A 602-394-52T | 390K OHM +–5% 1/6W |
| R897 | | | 61A 602-223-52T | 22K OHM 5% 1/6W |
| R898 | | | 61A 602-223-52T | 22K OHM 5% 1/6W |
| R899 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R8A1 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A2 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A4 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A5 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A6 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A7 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8A8 | | | 61S 602-563-52T | 56K OHM +–5% 1/6W |
| R8B1 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B2 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B4 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B5 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B6 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B7 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| R8B8 | | | 61S 602-471-52T | 470 OHM +–5% 1/6W |
| SW801 | 77A 413- 1- | | | SIGNAL SW |
| VR701 | 75A 323-501- | | | 500 OHM +–20% |
| VR702 | 75A 323-501- | | | 500 OHM +–20% |
| VR703 | 75A 323-501- | | | 500 OHM +–20% |
| ZD801 | | | 93D 39- 80-52T | 9.1V +–5% 1/2W |
| ZD802 | | | 93D 39- 52-52T | DIODE |

| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|--------------|-----------------|----------|----------------------------------|
| | | CM314-AI | CMPC-15 | AUTO INSERTION 14" MAIN BOARD |
| | | 1T 420- 3-120 | | 3MMx8 STEEL |
| | | 2T 202- 2- | | STAINLESS STEEL |
| | | 5B 38- 8- | | RUBBER WASHER |
| | | 5B 39- 8- | | WASHER |
| | | 9A 92- 13- | | BRASS |
| | | 9S 203- 8- | | BRASS |
| | | 9S 206- 5- | | CONNECTOR |
| | | 11T 84- 1- | | NYLON |
| | | 15T5316- 1- | | TERNEPLATE |
| | | 32 3028- 3- | | MICA |
| | | 40 154- 8- | | LABEL |
| | | 40 156- 15- 1 | | WARNING LABEL |
| 52D | 1-191- | | | GLASS CLOTH |
| 52D | 1-192- | | | GLASS CLOTH |
| | | 90T 186- 2- | | ALUMINUM |
| | | 90 189- 6- | | HEAT SINK |
| | | 90 208- 2- | | HEAT SINK |
| | | 95S 203- 30-102 | | UL1015#18/BLK |
| | | 95S 203- 32-102 | | UL1015#18/RED |
| | | 95S 203- 33-102 | | UL1015#18/ORG |
| | | 95S 203- 36-102 | | UL1015#18/BLUE |
| | | 95S 203- 59-152 | | UL1007#22/WHT STRAND |
| | | 95A1019-607- 4 | | UL2464#24/4P HOUSING |
| | | 95A1019-610- 4 | | UL2464#24/4P HOUSING |
| | | 95S3261- 2- | | UL1015#22/WHT |
| | | K1S 330- 10-128 | | M3x10 |
| | | K1S 330- 14-128 | | M3x14 |
| | | K1S 404-603-120 | | #6x3/8 |
| | | M2S 430-2.4-128 | | M3 |
| | 715A 294- 3- | | | 246.0x278.0x1.6MM |
| C2001 | | 67A 301-470- 7 | | 47UF +100-10% 50V |
| C2002 | | 67A 301-470- 3 | | 47UF +100-10% 15V |
| C2004 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C2006 | | 67A 301-470- 3 | | 47UF +100-10% 15V |
| C401 | | 67A 301-101- 3 | | 100UF +100-10% 15V |
| C402 | | 64A 177- 2- 58 | | 0.0012UF J 50V |
| C403 | | 64A 177- 25- 57 | | 0.1UF J 50V |
| C404 | | 64A 177- 10- 58 | | 0.0056UF J 50V |
| C405 | | 64A 177- 17- 58 | | 0.022UF J 50V |
| C406 | | 64A 177- 21- 58 | | 0.047UF J 50V |
| C407 | | 67S 202-688- 7 | | 0.68U 35V +-10% |
| C408 | | 67S 201-222- 4 | | 2200UF +100-10% 25V |
| C409 | | 67S 201-221- 6 | | 220UF +100-10% 35V |
| C410 | | 67S 201-101- 6 | | 100UF +100-10% 35V |
| C411 | | 65S 444-561- 1 | | 560PF K Z5P 50V |
| C412 | | 65S 444-101- 1 | | 100PF K Z5P 50V |
| C413 | | 67S 202-478- 7 | | 0.47U 35V +-10% |
| C414 | | 67A 301-101- 4 | | 100UF +100-10% 25V |
| C415 | | 67A 402-109- 7 | | 1UF 50V +-20% |
| C416 | | 67A 60-220- 3 | | 22UF 16V NP |
| C417 | | 65S 450-472- 3 | | .0047UF Z5U 50V |
| C419 | | 65S 444-102- 1 | | 1000PF K Z5P 50V |
| C420 | | 65S 444-561- 1 | | 560PF K Z5P 50V |

| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|----------|-----------------|-----------------|----------------------|
| C421 | | 65S 450-103- 3 | | 10000PF 50V Z5U |
| C422 | | 67S 201-101- 6 | | 100UF +100-10% 35V |
| C460 | | 67S 202-109- 7 | | 1UF +-10% 35V |
| C461 | | 67A 301-470- 3 | | 47UF +100-10% 15V |
| C462 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C463 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C464 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C465 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C466 | | 67S 202-109- 7 | | 1UF +-10%, 35V |
| C467 | | 65A 452-104- 4 | | .1UF +80-20% 16V Z5V |
| C470 | | 67A 301-470- 3 | | 47UF +100-10% 15V |
| C501 | | 65S 442-101- 1 | | 100PF J NPO 50V |
| C502 | | 64A 103- 54- | | .0022UF +/-5% 50V |
| C503 | | 65S 442-271- 1 | | 270PF 5% 50V NPO |
| C504 | | 64A 177- 11- 58 | | 0.0068UF J 50V |
| C505 | | 67S 202-109- 7 | | 1UF +-10% 35V |
| C506 | | 64A 177- 13- 58 | | 0.01UF J 50V |
| C507 | | 67S 202-109- 7 | | 1UF +-10% 35V |
| C508 | | 64A 103- 55- | | .0033UF +/-5% 50V |
| C509 | | 67S 201-221- 3 | | 220UF +100-10% 15V |
| C510 | | 64A 177- 13- 58 | | 0.01UF J 50V |
| C511 | | 67A 402-109- 7 | | 1UF 50V +-20% |
| C512 | | 65S 444-102- 1 | | 1000PF K Z5P 50V |
| C513 | | 63A 210- 29- | | 3600PF J 2KV |
| C514 | | 63A 210- 30- | | 4300PF J 2KV |
| C515 | | 64A 140- 53- 64 | | .027UF +/-5% 400V |
| C516 | | 67S 201-100- 10 | | 10UF +100-10% 160V |
| C517 | | 64A 140- 52- 64 | | 0.022UF J 400V |
| C518 | | 67S 201-100- 11 | | 10UF 200V |
| C519 | | 67S 201-220- 9 | | 22UF +100-10% 100V |
| C520 | | 65A517K-561-2A | | 560PF K Z5P 500V |
| C521 | | 65A517K-331-2A | | 330PF K Z5P 500V |
| C522 | | 63A 210- 34- | | 640000PF 200V |
| C523 | | 63A 210- 33- | | 68000PF 1KV |
| C524 | | 65A517K-221-2A | | 220PF K Z5P 500V |
| C526 | | 64A 177- 25- 57 | | 0.1UF J 50V |
| C527 | | 65S 444-102- 1 | | 1000PF K Z5P 50V |
| C551 | | 64A 177- 3- 58 | | 0.0015UF J 50V |
| C552 | | 67S 202-229- 7 | | 2.2UF +-10% 35V |
| C553 | | 67A 301-470- 4 | | 47UF +100-10% 25V |
| C557 | | 63A 210- 34- | | 640000PF 200V |
| C558 | | 63A 210- 34- | | 640000PF 200V |
| C559 | | 65S 450-103- 3 | | 10000PF 50V Z5U |
| C560 | | 65S 450-103- 3 | | 10000PF 50V Z5U |
| C561 | | 65S 450-103- 3 | | 10000PF 50V Z5U |
| C562 | | 65S 442-101- 1 | | 100PF J NPO 50V |
| C563 | | 64A 103- 54- | | .0022UF +/-5% 50V |
| C565 | | 64A 103- 16- | | .01UF K 50V |
| C566 | | 64A 103- 56- | | .0039UF +/-5% 50V |
| C567 | | 65S 444-102- 1 | | 1000PF K Z5P 50V |
| C568 | | 65S 444-681- 1 | | 680PF K Z5P 50V |
| C601 | | | 63S 107- 1- | .1UF M 250V AC |
| C602 | | | 63S 101- 18- | .047UF M 125/250V |
| C603 | | | 65A307M-222- 2B | 2200PF +-20% 400V AC |
| C604 | | | 65A307M-222- 2B | 2200PF +-20% 400V AC |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|----------------|-----------------|----------------|-------------------------|
| C606 | | 65A517K-472- 1B | | 4700PF K Z5F 500V |
| C607 | | 65A517K-472- 1B | | 4700PF K Z5F 500V |
| C603 | | 65A517K-472- 1B | | 4700PF K Z5F 500V |
| C609 | | 65A517K-472- 1B | | 4700PF K Z5F 500V |
| C610 | | | 67D 30- 38- | 470UF 200V |
| C611 | | | 67D 30- 38- | 470UF 200V |
| C612 | | | 95S 90- 22- | #22 TIN COATED |
| C613 | | | 65A305M-472-2B | 4700P μ -20% 400VAC |
| C621 | | 65A 2K-561-2BN | | 560PF K 2KV BN |
| C622 | | 67A 301-220- 4 | | 22UF +100-10% 25V |
| C623 | | 67A 301-220- 4 | | 22UF +100-10% 25V |
| C624 | | 64A 177- 58- 57 | | 0.1UF 100V 5% |
| C641 | | 67D 30- 38- | | 470UF 200V |
| C642 | | 67A 301-478- 10 | | .47UF +100-10% 160V |
| C643 | | 64A 177- 13- 58 | | 0.01UF J 50V |
| C661 | | 64A 177- 27- 57 | | 0.15UF J 50V |
| C662 | | 67A 301-100- 7 | | 10UF +100-10% 50V |
| C663 | | 65A 2K-561-2BN | | 560PF K 2KV BN |
| C664 | | 65S 450-473- 4 | | .047UF Z5V 50V |
| C665 | | 67S 201-471- 2 | | 470UF +100-10% 10V |
| C666 | | 67A 301-101- 2 | | 100UF +100-10% 10V |
| C681 | | 67S 201-102- 1 | | 1000UF +100-10% 6.3V |
| C683 | | 67S 201-101- 9 | | 100UF +100-10% 100V |
| C684 | | 67S 201-470- 9 | | 47UF +100-10% 100V |
| C685 | | 67S 201-102- 6 | | 1000UF +100-10% 35V |
| C686 | | 67S 201-331- 6 | | 330UF +100-10% 35V |
| C687 | | 67S 201-102- 3M | | 1000UF +100-10% 15V |
| C689 | | 67S 201-102- 2 | | 1000UF +100-10% 10V |
| C691 | | 64A 177- 1- 58 | | 0.001UF J 50V |
| D2001 | 93C 60- 38-52T | | | 1A 200V |
| D2002 | 93C 64-11H-52T | | | DIODE |
| D2004 | 93C 60- 38-52T | | | 1A 200V |
| D2005 | 93C 64-11H-52T | | | DIODE |
| D401 | 93C 64-11H-52T | | | DIODE |
| D402 | 93C 64-11H-52T | | | DIODE |
| D403 | 93C 64-11H-52T | | | DIODE |
| D404 | 93C 60- 38-52T | | | 1A 200V |
| D405 | 93C 64-11H-52T | | | DIODE |
| D460 | 93C 64-11H-52T | | | DIODE |
| D461 | 93C 64-11H-52T | | | DIODE |
| D462 | 93C 64-11H-52T | | | DIODE |
| D470 | 93C 60- 38-52T | | | 1A 200V |
| D501 | 93C 60- 81-52T | | | F.R.D. 1450V/5A |
| D502 | 93D 60- 62-52T | | | 1A/1500V 250N.S. |
| D503 | 93C 60- 38-52T | | | 1A 200V |
| D504 | 93C 60- 38-52T | | | 1A 200V |
| D505 | 93C 60- 38-52T | | | 1A 200V |
| D551 | 93C 64-11H-52T | | | DIODE |
| D552 | 93C 64-11H-52T | | | DIODE |
| D553 | 93C 64-11H-52T | | | DIODE |
| D554 | 93C 60- 38-52T | | | 1A 200V |
| D555 | 93C 60- 38-52T | | | 1A 200V |
| D556 | 93C 64-11H-52T | | | DIODE |
| D601 | 93C 52- 9-52T | | | 2A 600V |
| D602 | 93C 52- 9-52T | | | 2A 600V |
| D507 | 93C 60- 81-52T | | | F.R.D 1450V/5A |
| D506 | 93C 64-11M | | | DIODE |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|--------------|-----------------------|--------------------|-------------|-------------------------|
| D603 | 93C 52- 9-52T | | | 2A 600V |
| D604 | 93C 52- 9-52T | | | 2A 600V |
| D605 | 93C 52- 14-52T | | | 50A/1A RECTIFIER |
| D606 | 93C 52- 14-52T | | | 50A/1A RECTIFIER |
| D607 | 93C 52- 14-52T | | | 50A/1A RECTIFIER |
| D608 | 93C 52- 14-52T | | | 50A/1A RECTIFIER |
| D621 | 93C 64-11H-52T | | | DIODE |
| D622 | 93C 60- 77-52T | | | F.R.D. 100V/1A |
| D641 | 93C 60- 71-52T | | | F.R.D. 400V/1.5A |
| D642 | 93C 64-11H-52T | | | DIODE |
| D644 | 93C 64-11H-52T | | | DIODE |
| D661 | 93C 60- 47-52T | | | F.R.D. 600V/0.5A |
| D662 | 93C 60- 77-52T | | | F.R.D. 100V/1A |
| D665 | 93C 60- 77-52T | | | F.R.D. 100V/1A |
| D666 | 93C 64-11H-52T | | | DIODE |
| D668 | 93C 60- 77-52T | | | F.R.D. 100V/1A |
| D682 | 93D 60- 21-52T | | | FRD 1.5A 500V |
| D683 | | 93D 60- 70- | | 3A 600V FRD |
| D683 | 93C 60- 70-52T | | | F.R.D. 600V/3A |
| D684 | 93D 60- 72-52T | | | F.R.D. 1A 200V |
| D685 | | 93D 60- 93- | | 3A 40V SR340 |
| D686 | 93C 64-11H-52T | | | DIODE |
| F601 | | | 84C 7- 45- | FUSE 2.5A 250V S-B |
| FH001 | | 84B 33- 4- | | FUSE CLIP |
| FH001 | | 84C 33- 7- | | FUSE CLIP |
| IC401 | | 56A 326- 1- | | 20 PIN I.C |
| IC402 | | 56A 327- 1- | | 7 PIN I.C |
| IC451 | | 56A74LS-221- H | | 16 PIN IC |
| IC551 | | 56A 329- 1- | | 8 PIN I.C |
| IC552 | | 56A 328- 1- | | IC |
| IC553 | | 56A 210- 2- | | IC |
| IC554 | | 56A 328- 1- | | IC |
| IC555 | | 56A 265- 2- | | IC |
| IC621 | | 56A 161- 1- | | 4 PIN IC PC817 |
| IC622 | | 56A 161- 1- | | 4 PIN IC PC817 |
| IC641 | | 56A 158- 1- | | 3 PIN IC |
| IC661 | | 56A 161- 1- | | 4 PIN IC PC817 |
| J701 | | | 95S 90- 22- | #22 TIN COATED |
| J701 | 95S 90- 23- A | | | TIN COATED |
| J702 | 95S 90- 23- A | | | TIN COATED |
| J703 | 95S 90- 23- A | | | TIN COATED |
| J704 | 95S 90- 23- A | | | TIN COATED |
| J705 | 95S 90- 23- A | | | TIN COATED |
| J706 | 95S 90- 23- A | | | TIN COATED |
| J707 | 95S 90- 23- A | | | TIN COATED |
| J708 | 95S 90- 23- A | | | TIN COATED |
| J709 | 95S 90- 23- A | | | TIN COATED |
| J710 | 95S 90- 23- A | | | TIN COATED |
| J711 | 95S 90- 23- A | | | TIN COATED |
| J712 | 95S 90- 23- A | | | TIN COATED |
| J713 | 95S 90- 23- A | | | TIN COATED |
| J714 | 95S 90- 23- A | | | TIN COATED |
| J715 | 95S 90- 23- A | | | TIN COATED |
| J716 | 95S 90- 23- A | | | TIN COATED |
| J717 | 95S 90- 23- A | | | TIN COATED |

| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|---------------|--------------|-------------|---------------|
| J718 | 95S 90- 23- A | | | TIN COATED |
| J719 | 95S 90- 23- A | | | TIN COATED |
| J720 | 95S 90- 23- A | | | TIN COATED |
| J721 | 95S 90- 23- A | | | TIN COATED |
| J722 | 95S 90- 23- A | | | TIN COATED |
| J723 | 95S 90- 23- A | | | TIN COATED |
| J724 | 95S 90- 23- A | | | TIN COATED |
| J725 | 95S 90- 23- A | | | TIN COATED |
| J726 | 95S 90- 23- A | | | TIN COATED |
| J727 | 95S 90- 23- A | | | TIN COATED |
| J728 | 95S 90- 23- A | | | TIN COATED |
| J729 | 95S 90- 23- A | | | TIN COATED |
| J730 | 95S 90- 23- A | | | TIN COATED |
| J731 | 95S 90- 23- A | | | TIN COATED |
| J733 | 95S 90- 23- A | | | TIN COATED |
| J734 | 95S 90- 23- A | | | TIN COATED |
| J735 | 95S 90- 23- A | | | TIN COATED |
| J736 | 95S 90- 23- A | | | TIN COATED |
| J737 | 95S 90- 23- A | | | TIN COATED |
| J738 | 95S 90- 23- A | | | TIN COATED |
| J739 | 95S 90- 23- A | | | TIN COATED |
| J740 | 95S 90- 23- A | | | TIN COATED |
| J741 | 95S 90- 23- A | | | TIN COATED |
| J742 | 95S 90- 23- A | | | TIN COATED |
| J743 | 95S 90- 23- A | | | TIN COATED |
| J744 | 95S 90- 23- A | | | TIN COATED |
| J745 | 95S 90- 23- A | | | TIN COATED |
| J746 | 95S 90- 23- A | | | TIN COATED |
| J747 | 95S 90- 23- A | | | TIN COATED |
| J748 | 95S 90- 23- A | | | TIN COATED |
| J749 | 95S 90- 23- A | | | TIN COATED |
| J750 | 95S 90- 23- A | | | TIN COATED |
| J751 | 95S 90- 23- A | | | TIN COATED |
| J752 | 95S 90- 23- A | | | TIN COATED |
| J753 | 95S 90- 23- A | | | TIN COATED |
| J754 | 95S 90- 23- A | | | TIN COATED |
| J755 | 95S 90- 23- A | | | TIN COATED |
| J756 | 95S 90- 23- A | | | TIN COATED |
| J757 | 95S 90- 23- A | | | TIN COATED |
| J758 | 95S 90- 23- A | | | TIN COATED |
| J759 | 95S 90- 23- A | | | TIN COATED |
| J760 | 95S 90- 23- A | | | TIN COATED |
| J761 | 95S 90- 23- A | | | TIN COATED |
| J762 | 95S 90- 23- A | | | TIN COATED |
| J763 | 95S 90- 23- A | | | TIN COATED |
| J764 | 95S 90- 23- A | | | TIN COATED |
| J765 | 95S 90- 23- A | | | TIN COATED |
| J766 | 95S 90- 23- A | | | TIN COATED |
| J832 | 95S 90- 23- A | | | TIN COATED |
| L501 | | 73C 253- 37- | | 50UH |
| L502 | | 73C 253- 32- | | 5.6UH 3A |
| L504 | | 73C 147- 26- | | 8.2UH +/-15% |
| L505 | | 94A 483- 21- | | WIDTH COIL |
| L507 | | 73A 253- 42- | | 5.4MH 800MA |
| L601 | | | 73C 173- 1- | 10MH |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|-----------------|--------------|-------------|----------------------|
| L602 | | | 73C 173- 2- | 3MH |
| L621 | | 73C 259- 1- | | 10UH +/-15% |
| L661 | | 73C 259- 4- | | 200UH +/-5% |
| L662 | | 73C 259- 3- | | 100UH +/-10% |
| L682 | | 73C 259- 4- | | 200UH +/-5% |
| L683 | | 73C 259- 2- | | 30UH +/-15% |
| LC401 | | 53A 40- 1- | | .022UF +50-20 50V 7A |
| N001 | | 50B 13- 1- | | PLASTIC TIE |
| N001 | | 50T 106- 1- | | CABLE TIE |
| P401 | | 33T3072- 2- | | 6P PLUG PLASTIC |
| P500 | | 33T3074- 5- | | 6P PLUG |
| P502 | | 33T3072- 8- | | 4P PLUG PLASTIC |
| P503 | | 33T3074- 1- | | 2P PLUG |
| P601 | | 33A3355- 1- | | 2 PIN PLUG |
| P602 | | 33T3074- 1- | | 2P PLUG |
| P603 | | 33A3355- 1- | | 2 PIN PLUG |
| P604 | | 33A3355- 1- | | 2 PIN PLUG |
| P605 | | 33T3072- 12- | | 3P PLUG PLASTIC |
| Q2001 | | 57A 420- Q- | | TRANSISTOR |
| Q2002 | | 57B 419- Q- | | TRANSISTOR |
| Q401 | | 57B 419- Q- | | TRANSISTOR |
| Q402 | | 57A 549- 1- | | TRANSISTOR |
| Q403 | | 57A 507- L- | | TRANSISTOR |
| Q404 | | 57B 419- Q- | | TRANSISTOR |
| Q405 | | 57A 553- 1- | | TRANSISTOR |
| Q460 | | 57A 420- Q- | | TRANSISTOR |
| Q501 | | 57B 419- Q- | | TRANSISTOR |
| Q502 | | 57A 521- C- | | TRANSISTOR |
| Q503 | | 57A 551- 1- | | TRANSISTOR |
| Q504 | | 57B 419- Q- | | TRANSISTOR |
| Q551 | | 57A 552- P- | | TRANSISTOR |
| Q551 | | 57A 552- Q- | | TRANSISTOR |
| Q552 | | 57B 419- Q- | | TRANSISTOR |
| Q554 | | 57A 554- 1- | | TRANSISTOR |
| Q557 | | 57A 554- 3- | | TRANSISTOR |
| Q558 | | 57A 554- 3- | | TRANSISTOR |
| Q621 | | 57A 560- 1- | | TRANSISTOR |
| Q621 | | 57A 573- 1- | | TRANSISTOR |
| Q622 | | 57A 446- 1- | | TRANSISTOR |
| Q641 | | 57A 423- 8T- | | TRANSISTOR |
| Q661 | | 57A 560- 1- | | TRANSISTOR |
| Q661 | | 57A 573- 1- | | TRANSISTOR |
| Q662 | | 57A 507- 1- | | TRANSISTOR |
| Q662 | | 57A 507- 2- | | TRANSISTOR |
| Q663 | | 57A 446- 1- | | TRANSISTOR |
| Q664 | | 57B 419- P- | | TRANSISTOR |
| Q665 | | 57A 446- 1- | | TRANSISTOR |
| Q681 | | 57B 419- P- | | TRANSISTOR |
| R2001 | 61S 172-229-52T | | | 2.2 OHM +/-5% 1/4W |
| R2002 | 61S 172-682-52T | | | 6.8K OHM 5% 1/4W |
| R2004 | 61A 602-682-52T | | | 6.8K OHM 5% 1/6W |
| R2005 | 61A 602-222-52T | | | 2.2K OHM 5% 1/6W |
| R2006 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R2007 | 61S 172-229-52T | | | 2.2 OHM +/-5% 1/4W |
| R2008 | 61A 602-682-52T | | | 6.8K OHM 5% 1/6W |

| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|-----------------|-----------------|-----------------|---------------------|
| R2009 | 61A 602-222-52T | | | 2.2K OHM 5% 1/6W |
| R2010 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R2011 | 61A 602-123-52T | | | 12K OHM 5% 1/6W |
| R401 | | 61S152M-221- 64 | | 220 OHM 5% 2W |
| R402 | | 61A 602-364- 65 | | 360K OHM +/-5% 1/6W |
| R403 | | 61A 602-563- 65 | | 56K OHM 5% 1/6W |
| R404 | | 61A 602-473- 65 | | 47K OHM 5% 1/6W |
| R405 | | 61A 602-331- 65 | | 330 OHM 5% 1/6W |
| R406 | | 61A 602-561- 65 | | 560 OHM 5% 1/6W |
| R407 | | 61S152M-189- 64 | | 1.8 OHM +/-5% 2W |
| R408 | | | 61S 175-471- 64 | 470 OHM 5% 1/2W |
| R409 | 61A 602-472-52T | | | 4.7K OHM 5% 1/6W |
| R410 | 61S 602-152-52T | | | 1.5K OHM +/-5% 1/6W |
| R411 | | 61A 602-332- 63 | | 3.3K OHM 5% 1/6W |
| R412 | 61A 602-153-52T | | | 15K OHM 5% 1/6W |
| R413 | | 61S152M-221- 64 | | 220 OHM 5% 2W |
| R414 | 61S 172-220-52T | | | 22 OHM 5% 1/4W |
| R415 | | 61A 602-333- 65 | | 33K OHM 5% 1/6W |
| R416 | 61A 602-472-52T | | | 4.7K OHM 5% 1/6W |
| R417 | | 61A 602-104- 65 | | 100K OHM 5% 1/6W |
| R418 | 61A 602-822-52T | | | 8.2K OHM +/-5% 1/6W |
| R419 | 61S 172-102-52T | | | 1K OHM 5% 1/4W |
| R420 | 61S 602-101-52T | | | 100 OHM 5% 1/6W |
| R421 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R422 | 61A 602-223-52T | | | 22K OHM 5% 1/6W |
| R423 | | 61S 175-151- 64 | | 150 OHM 5% 1/2W |
| R425 | | 61A 602-183- 65 | | 18K OHM 5% 1/6W |
| R426 | 61A 602-222-52T | | | 2.2K OHM +/-5% 1/6W |
| R428 | 61A 602-223-52T | | | 22K OHM 5% 1/6W |
| R429 | 61S 602-101-52T | | | 100 OHM 5% 1/6W |
| R430 | 61S 602-101-52T | | | 100 OHM 5% 1/6W |
| R432 | | 61A 602-824- 65 | | 820K OHM +/-5% 1/6W |
| R433 | 61A 602-472-52T | | | 4.7K OHM 5% 1/6W |
| R460 | 61A 602-222-52T | | | 2.2K OHM +/-5% 1/6W |
| R461 | | 61A 602-103- 65 | | 10K OHM 5% 1/6W |
| R462 | 61S 172-471-52T | | | 470 OHM 5% 1/4W |
| R463 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R464 | 61S 172-471-52T | | | 470 OHM 5% 1/4W |
| R465 | | 61A 602-203- 65 | | 20K OHM 5% 1/6W |
| R466 | 61A 602-184-52T | | | 180K OHM +/-5% 1/6W |
| R467 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R468 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R469 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R470 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R471 | 61A 602-222-52T | | | 2.2K OHM +/-5% 1/6W |
| R472 | 61A 602-123-52T | | | 12K OHM 5% 1/6W |
| R473 | | 61A 602-334- 65 | | 330K OHM 5% 1/6W |
| R474 | 61A 602-823-52T | | | 82K OHM +/-5% 1/6W |
| R475 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R476 | | 61A 602-393- 65 | | 39K OHM 5% 1/6W |
| R500 | | 61S152M-339- 64 | | 3.3 OHM 5% 2W |
| R501 | 61S 602-102-52T | | | 1K OHM 5% 1/6W |
| R503 | 61A 602-392-52T | | | 1.2K OHM 5% 1/6W |
| R504 | 61A 602-223-52T | | | 3.9K OHM 5% 1/6W |
| R505 | 61A 602-223-52T | | | 22K OHM 5% 1/6W |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|-----------------|-----------------|----------|---------------------|
| R506 | 61A 602-123-52T | | | 12K OHM 5% 1/6W |
| R507 | 61S 602-102-52T | | | 1K OHM 5% 1/6W |
| R508 | 61A 602-223-52T | | | 22K OHM 5% 1/6W |
| R509 | 61A 602-823-52T | | | 82K OHM +--5% 1/6W |
| R510 | | 61A 602-333- 65 | | 33K OHM 5% 1/6W |
| R511 | 61A 602-822-52T | | | 8.2K OHM +--5% 1/6W |
| R512 | 61S 602-102-52T | | | 1K OHM 5% 1/6W |
| R513 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R514 | 61S 177-123-52T | | | 12K OHM +--1% 1/4W |
| R515 | 61S 177-123-52T | | | 12K OHM +--1% 1/4W |
| R516 | 61S 602-102-52T | | | 1K OHM 5% 1/6W |
| R517 | | 61A 602-471- 65 | | 470 OHM 5% 1/6W |
| R518 | | 61S 175-751- 64 | | 750 OHM 5% 1/2W |
| R519 | | 61S153M-221- 64 | | 220 OHM 5% 3W |
| R521 | | 61S 175-510- 64 | | 51 OHM 5% 1/2W |
| R522 | 61S 172-479-52T | | | 4.7 OHM +--5% 1/4W |
| R523 | 61S 172-229-52T | | | 2.2 OHM +--5% 1/4W |
| R524 | 61S 175-471-52T | | | 470 OHM +--5% 1/2W |
| R525 | | 61S 175-331- 64 | | 330 OHM 5% 1/2W |
| R526 | | 61S 175-759- 64 | | 7.5 OHM +--5% 1/2W |
| R527 | | 61S 175-105- 64 | | 1MEG OHM 5% 1/2W |
| R528 | | 61S 175-105- 64 | | 1MEG OHM 5% 1/2W |
| R529 | | 61S 175-105- 64 | | 1MEG OHM 5% 1/2W |
| R530 | 61A 602-184-52T | | | 180K OHM +--5% 1/6W |
| R531 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R532 | 61S 602-152-52T | | | 1.5K OHM +--5% 1/6W |
| R534 | 61S 602-102-52T | | | 1K OHM 5% 1/6W |
| R536 | | 61A 602-105- 65 | | 1M OHM 5% 1/6W |
| R551 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R552 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R553 | | 61A 602-124- 65 | | 120K OHM 5% 1/6W |
| R554 | 61A 602-472-52T | | | 4.7K OHM 5% 1/6W |
| R555 | 61A 602-823-52T | | | 82K OHM +--5% 1/6W |
| R556 | 61S 177-392-52T | | | 3.9K OHM +--1% 1/4W |
| R557 | 61S 177-273-52T | | | 27K OHM +--1% 1/4W |
| R558 | 61S 172-103-52T | | | 10K OHM 5% 1/4W |
| R559 | 61S 177-203-52T | | | 20K OHM +--1% 1/4W |
| R560 | 61S 177-123-52T | | | 12K OHM +--1% 1/4W |
| R562 | 61S 177-124-52T | | | 120K OHM +--1% 1/4W |
| R563 | 61A 602-153-52T | | | 15K OHM 5% 1/6W |
| R564 | 61S 172-475-52T | | | 4.7M OHM +--5% 1/4W |
| R565 | 61S 177-204-52T | | | 200K OHM +--1% 1/4W |
| R566 | 61S 177-124-52T | | | 120K OHM +--1% 1/4W |
| R567 | 61A 602-153-52T | | | 15K OHM 5% 1/6W |
| R568 | 61S 172-475-52T | | | 4.7M OHM +--5% 1/4W |
| R569 | 61S 177-124-52T | | | 120K OHM +--1% 1/4W |
| R570 | 61S 177-134-52T | | | 130K OHM +--1% 1/4W |
| R571 | 61A 602-153-52T | | | 15K OHM 5% 1/6W |
| R572 | 61S 172-475-52T | | | 4.7M OHM +--5% 1/4W |
| R573 | 61S 177-274-52T | | | 270K OHM +--1% 1/4W |
| R574 | 61A 602-153-52T | | | 15K OHM 5% 1/6W |
| R575 | 61S 177-561-52T | | | 560 OHM +--1% 1/4W |
| R576 | 61S 177-683-52T | | | 68K OHM +--1% 1/4W |
| R577 | 61S 177-124-52T | | | 120K OHM +--1% 1/4W |
| R578 | 61S 177-474-52T | | | 470K OHM +--1% 1/4W |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|-------|-----------------|-----------------|-------------|---------------------|
| R579 | 61S 177-753-52T | | | 75K OHM + -1% 1/4W |
| R581 | 61S 177-104-52T | | | 100K OHM + -1% 1/4W |
| R582 | 61S 177-104-52T | | | 100K OHM + -1% 1/4W |
| R583 | 61S 177-104-52T | | | 100K OHM + -1% 1/4W |
| R584 | 61S 177-473-52T | | | 47K OHM + -1% 1/4W |
| R587 | 61S 172-479-52T | | | 4.7 OHM + -5% 1/4W |
| R588 | 61A 602-222-52T | | | 2.2K OHM + -5% 1/6W |
| R589 | 61A 602-222-52T | | | 2.2K OHM + -5% 1/6W |
| R590 | 61A 602-562-52T | | | 5.6K OHM 5% 1/6W |
| R591 | 61A 602-682-52T | | | 6.8K OHM 5% 1/6W |
| R592 | 61A 602-103-52T | | | 10K OHM 5% 1/6W |
| R593 | | 61A 602-333- 65 | | 33K OHM 5% 1/6W |
| R601 | | 61S 175-105- 64 | | 1MEG OHM 5% 1/2W |
| R602 | | 61D 20-200- | | 2.4 OHM 5% 10W |
| R603 | | | 61D 52- 14- | 5 OHM 45 AMPS |
| R605 | | 61S 20-274- | | 75 OHM + -5% 10W |
| R621 | | 61S 175-105- 64 | | 1MEG OHM 5% 1/2W |
| R622 | | 61A 303-228- 64 | | 0.22 OHM 5% 1W |
| R623 | | 61D 20-257- | | 1.2 OHM 5% 5W |
| R624 | 61S 172-102-52T | | | 1K OHM 5% 1/4W |
| R625 | 61S 172-331-52T | | | 330 OHM 5% 1/4W |
| R626 | | 61S152M-470- 64 | | 47 OHM 5% 2W |
| R627 | 61S 172-121-52T | | | 120 OHM + -5% 1/4W |
| R628 | | 61S 208-259- 64 | | 2.5 OHM 5% 1W |
| R629 | 61S 172-120-52T | | | 12 OHM 5% 1/4W |
| R631 | 61S 202-120-52T | | | 12 OHM + -5% 1/4W |
| R641 | 61S 172-163-52T | | | 16K OHM + -5% 1/4W |
| R642 | | 61S152M-103- 64 | | 10K OHM 5% 2W |
| R644 | 61S 172-332-52T | | | 3300 OHM 5% 1/4W |
| R645 | | 61S 208-513- 64 | | 51K OHM 5% 1W |
| R646 | 61S 172-103-52T | | | 10K OHM 5% 1/4W |
| R647 | 61S 172-222-52T | | | 2.2K OHM 5% 1/4W |
| R648 | 61S 172-101-52T | | | 100 OHM 5% 1/4W |
| R649 | | 61D 20-242- | | 18K OHM 5% 5W |
| R661 | 61S 175-474-52T | | | 470K OHM 5% 1/2W |
| R662 | 61S 175-474-52T | | | 470K OHM 5% 1/2W |
| R663 | | 61A 303-228- 64 | | 0.22 OHM 5% 1W |
| R664 | | 61D 20-257- | | 1.2 OHM 5% 5W |
| R665 | 61S 172-102-52T | | | 1K OHM 5% 1/4W |
| R666 | 61S 172-332-52T | | | 3300 OHM 5% 1/4W |
| R667 | 61S 172-102-52T | | | 1K OHM 5% 1/4W |
| R668 | 61S 172-151-52T | | | 150 OHM 5% 1/4W |
| R669 | 61S 172-332-52T | | | 3300 OHM 5% 1/4W |
| R670 | 61S 172-112-52T | | | 1100 OHM 5% 1/4W |
| R671 | 61S 172-203-52T | | | 20K OHM 5% 1/4W |
| R672 | | 61S152M-101- 64 | | 100 OHM 5% 2W |
| R673 | 61S 202-820-52T | | | 82 OHM + -5% 1/4W |
| R674 | | 61S 208-259- 64 | | 2.5 OHM 5% 1W |
| R676 | 61S 172-120-52T | | | 12 OHM 5% 1/4W |
| R677 | 61S 172-519-52T | | | 5.1 OHM + -5% 1/4W |
| R678 | 61S 172-391-52T | | | 390 OHM 5% 1/4W |
| R679 | 61S 172-471-52T | | | 470 OHM 5% 1/4W |
| R682 | | 61S 175-513- 64 | | 51K OHM 5% 1/2W |
| R683 | 61S 172-103-52T | | | 10K OHM 5% 1/4W |
| R685 | 61S 202-820-52T | | | 82 OHM + -5% 1/4W |



| APPL. | CM314-AI | CMPC-15 | CMPC-15F | SPECIFICATION |
|--------|-----------------|-----------------|-------------|---------------------|
| R686 | 61S 172-471-52T | 61S 208-829- 64 | | 470 OHM 5% 1/4W |
| R690 | | | | 8.2 OHM 5% 1W |
| T501 | | 79A 167-22B- | | LK:380UH MAX. |
| T502 | | 79A 328- 1- | | MULT-SYNC HOT |
| T503 | | 79A 196- 8- | | L=-460MH +/-5% |
| T621 | | | 80A 516- 1- | L(3-1)=6.1MH +/-5% |
| T661 | | | 80A 515- 1- | L(6-5)=3.75MH +/-7% |
| VR2002 | | 75A 335-222- | | 2.2K OHM +20% |
| VR2003 | | 75A 335-222- | | 2.2K OHM +20% |
| VR401 | | 75A 335-104- | | 100KB OHM |
| VR402 | | 75A 335-221- | | 220 OHM +20% |
| VR403 | | 75A 335-221- | | 220 OHM +20% |
| VR404 | | 75A 335-471- | | 470 OHM +20% |
| VR405 | | 75A 335-333- | | 33KB OHM |
| VR406 | | 75A 335-103- | | 10KB OHM |
| VR451 | | 75A 335-332- | | 3K3 OHM |
| VR452 | | 75A 335-334- | | 330K OHM +20% |
| VR470 | | 75A 323-201- | | 200 OHM +20% |
| VR501 | | 75A 335-333- | | 33KB OHM |
| VR502 | | 75A 335-472- | | 4K7 OHM |
| VR551 | | 75A 335-102- | | 1KB OHM |
| VR552 | | 75A 335-332- | | 3K3 OHM |
| VR553 | | 75A 335-473- | | 47K OHM +20% |
| VR554 | | 75A 335-473- | | 47K OHM +20% |
| VR555 | | 75A 335-474- | | 470K OHM +20% |
| VR641 | | 75A 314-102- | | 1K OHM +20% |
| VR661 | | 75A 323-501- | | 500 OHM +20% |
| ZD2001 | 93C 39- 91-52T | | | 7.78-8.19V DIODE |
| ZD2002 | 93C 39- 91-52T | | | 7.78-8.19V DIODE |
| ZD401 | 93D 39- 68-52T | | | 11.44-12.03V DIODE |
| ZD402 | 93C 39- 45-52T | | | 24V +5% ZENER DIODE |
| ZD460 | 93D 39- 52-52T | | | DIODE |
| ZD551 | 93C 39- 91-52T | | | 7.78-8.19V DIODE |
| ZD643 | 93D 39- 73-52T | | | ZENER DIODE |
| ZD664 | 93D 39- 79-52T | | | DIODE |
| ZD670 | 93C 39- 55-52T | | | 30V +5% ZENER DIODE |

| MODEL | CTV-3BHB2 (TUV & FTZ) | CTZ-3BHB2 (TUV) | SPECIFICATION |
|-------|--------------------------|--------------------|----------------------|
| APPL. | CMC-15V | CMC-15Z | CHAS |
| | 1T 421- 4-128 | 1T 421- 4-128 | CHAS |
| | 1T 421- 9-128 | 1T 421- 9-128 | 3x10 |
| | 2C 9- 77-128 | | 4x11 STEEL |
| | 2T 208- 1- 47 | | STEEL |
| | 2C 217- 1-128 | 2C 217- 1-128 | TERNEPLATE |
| | 3C 1-115- 47 | 3C 1-115- 47 | STEEL |
| | 4C 1- 97-128 | | 6.2x20.8x2.3 |
| | 5B 38- 8- | 5B 38- 8- | STEEL |
| | 9B 84- 20- | 9B 84- 20- | RUBBER WASHER |
| | 9S 301- 5- | 9S 301- 5- | STEEL |
| | I1D 27- 3- | I1D 27- 3- | BRASS |
| | 12A 195- 17- | 12A 195- 17- | NYLON |
| | 12T 325- 2- | | CHLOROPRENE |
| | 12T 349- 1- | 12T 349- 1- | RUBBER |
| | 15T5286- 1- | 15T5286- 1- | TERNEPLATE |
| | 15T5286- 2- | 15T5286- 2- | TERNEPLATE |
| | 15T5358- 1- | | ALUMINUM |
| | 15T5439- 1- | 15T5439- 1- | TERNEPLATE |
| | 19B 403- 5- | 19B 403- 5- | STEEL |
| | 19T 522- 1- | 19T 522- 1- | WIRE STEEL |
| | 23T3047- 32- | 23T3047- 32- | ALUMINUM |
| | 26A 500- 2- | | SERIAL CARD (YELLOW) |
| | 26 800- 2- | 26 800- 2- | SERIAL CARD (YELLOW) |
| | 33T3292- 1- | 33T3292- 1- | A.B.S. PLASTIC |
| | 33T3292- 2- | 33T3292- 2- | A.B.S. PLASTIC |
| | 33T3313- 7- | 33T3313- 7- | A.B.S. PLASTIC |
| | 33T3421- 1- | 33T3421- 1- | ABS PLASTIC |
| | 34E 436- 8- A | 34E 436- 8- A | A.B.S. PLASTIC |
| | | 34E 437- 12- A | A.B.S. PLASTIC |
| | 34E 437- 13- A | | A.B.S. PLASTIC |
| | 34E 438- 17- A | 34E 438- 16- A | A.B.S. PLASTIC |
| | | 34E 465- 3- A | A.B.S. PLASTIC |
| | 34E 465- 4- A | | A.B.S. PLASTIC |
| | 40A 153- 41- | 40A 153- 41- | LABEL |
| | 40 154- 8- | 40 154- 8- | LABEL |
| | 40A 155-275- 2 | 40A 155-275- 2 | LABEL |
| | 40A 575- 27- | 40A 575- 27- | TUV LABEL |
| | 40A 590- 16- | 40A 590- 16- | LABEL |
| | 40 590- 52- | | LABEL |
| | 41 51-001- | 41 51-001- | TRAVELER CARD |
| | 41A 68- 45- | | FTZ STATEMENT |
| | 41A 401-271- | | OWNER'S MANUAL |
| | 41A 401-271- 1 | | OWNER'S MANUAL |
| | | 41 401-385- 1 | OWNER'S MANUAL |
| | 44T3045- 14- | 44T3045- 14- A | 275# "AB" FLUTE |
| | 44T3045- 14- A | | 275# "AB" FLUTE |
| | 44T3079- 1- | 44T3079- 1- | E.P.S |
| | 44T3079- 2- | 44T3079- 2- | E.P.S |
| | 45C 76- 5- | 45C 76- 5- | POLY BAG |
| | 45C 77- 1- | 45C 77- 1- | TRANSPARENT SHEET |
| | 45C 88- 1- | 45C 88- 1- | PE |

| APPL. | CTV-3BHB2 | CTZ-3BHB2 | SPECIFICATION |
|-------|-----------------|-----------------|----------------------|
| | 50S 102- 5- | 50S 102- 5- | PLASTIC |
| | 51A 2- 11- | 51A 2- 11- | HOT MELT GLUE |
| | 52D 1-188- | 52D 1-185- 1 | TAPE |
| | 85T 387- 1- | 85T 387- 1- | PVC TAPE 8MIL BLK |
| | 89A 173- 21- | 89A 173- 12- | TERNEPLATE |
| | 89A 173- 22- | 89A 173- 21- | SIGNAL CABLE |
| | 89A 490- 4- | 89A 498- 1- | CABLE ASS'Y |
| | 95A 91-205- 1 | 95A 91-205- 1 | CABLE ASSEMBLY |
| | 95A 704- 2- | 95A 704- 2- | POWER CORD |
| | 96 29- 6-200 | 96 29- 6-200 | POWER CORD (VDE) |
| | G1S 140- 18-120 | G1S 140- 18-120 | UL1015 & COPPER WIRE |
| | K1S 340- 10-128 | | WIRE & HOUSING ASSY |
| | K1S 350- 25-128 | | H.S. TUBING UL/CSA |
| | K1S 401-805-120 | K1S 401-805-120 | 4MMx18 STEEL |
| | K1S 401-806-128 | K1S 401-806-128 | M4x10 STEEL |
| | K1S 404-603-120 | K1S 404-603-120 | M5x25 STEEL |
| | 750A1697- 61- 1 | 750A1697- 61- 1 | #8x5/8 |
| | 750A5100- 4- | 750A5100- 4- | #8x3/4 |
| 1P | | 4C 1- 97-128 | #6x3/8 |
| 1P | | K1S 350- 25-128 | DEGAUSSING COIL VDE |
| 2P | | 2C 9- 77-128 | 14" N. G. 0.31MM CRT |
| 4P | | 2T 208- 1- 47 | STEEL |
| 4P | | 12T 325- 2- | M5x25 STEEL |
| | | | STEEL |
| | | | TERNEPLATE |
| | | | RUBBER |



| APPL. | CNPC-15V | CNPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|----------------------|
| | 1T 421- 4-128 | 1T 421- 4-128 | 3x10 |
| | 32T3029- 2- | 32T3029- 2- | PVC SHEET |
| | 33T3403- 4- | 33T3403- 1- | A.B.S. PLASTIC |
| | 33T3404- 1- | 33T3404- 1- | A.B.S. PLASTIC |
| | 33T3439- 1- | 33T3439- 1- | A.B.S. PLASTIC |
| | 95 201- 59-042 | 95 201- 59-042 | NYLON |
| | 95A1019-610- 4 | 95A1019-610- 4 | UL1007#22/WHT |
| | 95A1019-610- 6 | 95A1019-610- 6 | UL2464#24/4P HOUSING |
| | 95S1019-611- 8 | 95S1019-611- 8 | UL2464#24/6P HOUSING |
| | 95A1019-612- 3 | 95A1019-612- 3 | UL2468#24/8P HOUSING |
| | 95A1019-613- 5 | 95A1019-613- 5 | UL2464#24/3P HOUSING |
| | 95A1019-615- 2 | 95A1019-615- 2 | UL2464#24/5P HOUSING |
| | 96B 25- 10-050 | 96B 25- 10-050 | UL2464#24/2P HOUSING |
| | 96S 29- 6-131 | | TUBING 0.53" L:50MM |
| | 715A 296- 2- | 715A 296- 2- | H.S. TUBING |
| C101 | 67A 301-479- 7 | 67A 301-479- 7 | 50.0x140.0x1.6MM |
| C102 | 64A 177- 13- 58 | 64A 177- 13- 58 | 4.7UF +100-10% 50V |
| C103 | 65A 452-104- 4 | 65A 452-104- 4 | 0.01UF J 50V |
| D1 | 81A 7- 2- | 81A 7- 2- | .1UF +80-20% 16V Z5V |
| D1 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| D101 | 93C 64-11H- | 93C 64-11H- | GREEN LED |
| D102 | 93C 64-11H | 93C 64-11H | DIODE |
| D2 | 81A 7- 2- | 81A 7- 2- | DIOD |
| D2 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| D3 | 81A 7- 2- | 81A 7- 2- | GREEN LED |
| D3 | 81A 7- 2- 1 | 81A 7- 2- 1 | LED |
| IC101 | 56A74LS- 86- H | 56A74LS- 86- H | 14 PIN IC |
| J1 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J2 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J3 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| P102 | 33T3072- 8- | 33T3072- 8- | 4P PLUG PLASTIC |
| Q101 | 57B 419- Q- | 57B 419- Q- | TRANSISTOR |
| R1001 | 61A 602-333- 65 | 61A 602-333- 65 | 33K OHM 5% 1/6W |
| R1003 | 61A 602-153- 65 | 61A 602-153- 65 | 15K OHM 5% 1/6W |
| R101 | 61A 602-222- 65 | 61A 602-222- 65 | 2.2K OHM 5% 1/6W |
| R102 | 61A 602-563- 65 | 61A 602-563- 65 | 56K OHM 5% 1/6W |
| R103 | 61A 602-562- 65 | 61A 602-562- 65 | 5.6K OHM 5% 1/6W |
| R104 | 61A 602-222- 65 | 61A 602-222- 65 | 2.2K OHM 5% 1/6W |
| SW2 | 77A 401- 11- | 77A 401- 11- | SLIDE SW |
| SW3 | 77A 401- 11- | 77A 401- 11- | SLIDE SW |
| VR1 | 75A 346-103- | 75A 346-103- | CONTROL 10KB +-20% |
| VR2 | 75A 346-204- | 75A 346-204- | CONTROL 200KB +-20% |
| VR3 | 75A 346-203- | 75A 346-203- | CONTROL 20KB +-20% |
| VR4 | 75A 346-103- | 75A 346-103- | CONTROL 10KB +-20% |
| VR5 | 75A 346-501- A | 75A 346-501- A | 500 OHM +-20% |
| VR6 | 75A 346-204- | 75A 346-204- | CONTROL 200KB +-20% |



| APPL. | SGPC-15 | SGPC-15V | SGPC-AI | SPECIFICATION |
|-------|-----------------|-----------------|----------------|----------------------|
| | | SGPC-15 | | SIGNAL BOARD |
| | SGPC-AI | 3C 1- 40-106 | | AUTO INSERTION |
| | 9S 203- 8- | | | LOCK WASHER |
| | 15T5400- 2- | | | BRASS |
| | 95A1019-617- | 95A1019-617- 4 | 52D 1-191- | BRACKET |
| | | 95S205T- 50-042 | 52D 1-192- | GLASS CLOTH |
| | M1S 330- 6-120 | | | GLASS CLOTH |
| | | | 715A 293- 3- | UL2464#24/4P HOUSING |
| C682 | 67S 201-471- 1 | | | UL1015#22/BLK |
| C688 | 67S 201-221- 3 | | | 3MMx6 STEEL |
| C701 | 65A 452-104- 4 | | | 138.0x150.0x1.6MM |
| C702 | 67A 301-100- 7 | | | 470UF +100-10% 6.3V |
| C703 | 65S 450-103- 3 | | | 220UF +100-10% 15V |
| C704 | 67A 301-479- 7 | | | .1UF +80-20% 16V Z5V |
| C705 | 67A 301-470- 3 | | | 10UF +100-10% 50V |
| C706 | 67A 301-109- 7 | | | 10000PF 50V Z5U |
| C707 | 65S 444-471- 1 | | | 4.7UF +100-10% 50V |
| C708 | 67A 301-109- 7 | | | 47UF +100-10% 15V |
| C709 | 64A 177- 17- 58 | | | 1UF +100-10% 50V |
| C710 | 64A 177- 17- 58 | | | 0.022UF J 50V |
| C711 | 64A 177- 17- 58 | | | 0.022UF J 50V |
| C714 | 65A 452-104- 4 | | | 0.022UF J 50V |
| C715 | 67A 301-100- 7 | | | .1UF +80-20% 16V Z5V |
| C716 | 65S 444-102- 1 | | | 10UF +100-10% 50V |
| C717 | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C718 | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C801 | 67A 301-101- 3 | | | 1000PF K Z5P 50V |
| C802 | 67A 301-101- 3 | | | 100UF +100-10% 15V |
| C804 | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C805 | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C806 | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C808 | 67A 301-229- 7 | | | 2.2UF +100-10% 50V |
| C809 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C810 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C812 | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C813 | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C814 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C817 | 64A 177- 1- 58 | | | 0.001UF J 50V |
| C818 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C819 | 67A 301-109- 7 | | | 1UF +100-10% 50V |
| C820 | 67A 301-229- 7 | | | 2.2UF +100-10% 50V |
| C821 | 64A 177- 3- 58 | | | 0.0025UF J 50V |
| C822 | 64A 177- 1- 58 | | | 0.001UF J 50V |
| C823 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C824 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C827 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C828 | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C829 | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C830 | 65S 442-120- 1 | | | 12PF J NPO 50V |
| D701 | | | 93C 64-11H-52T | DIODE |
| D702 | | | 93C 64-11H-52T | DIODE |

| APPL. | SGPC-15 | SGPC-15V | SGPC-AI | SPECIFICATION |
|-------|----------------|---------------|----------------|---------------|
| D803 | | | 93C 64-11H-52T | DIODE |
| D804 | | | 93C 64-11H-52T | DIODE |
| D805 | | | 93C 64-11H-52T | DIODE |
| D806 | | | 93C 64-11H-52T | DIODE |
| D807 | | | 93C 64-11H-52T | DIODE |
| D808 | | | 93C 64-11H-52T | DIODE |
| D809 | | | 93C 64-11H-52T | DIODE |
| D810 | | | 93C 64-11H-52T | DIODE |
| D822 | | | 93C 64-11H-52T | DIODE |
| D823 | | | 93C 64-11H-52T | DIODE |
| D824 | | | 93C 64-11H-52T | DIODE |
| IC701 | 56A 330- 1- | | | 18 PIN IC |
| IC801 | 56A 74S-473- | | | 20 PIN IC |
| IC804 | 56A 308- 1- H | | | 14 PIN IC |
| IC805 | 56A74LS-123- H | | | 16 PIN IC |
| IC805 | 56A74LS-123- M | | | 16 PIN IC |
| IC805 | 56A74LS-123- T | | | 16 PIN IC |
| IC806 | 56A74LS-136- H | | | 14 PIN IC |
| IC806 | 56A74LS-136- M | | | 14 PIN IC |
| IC806 | 56A74LS-136- T | | | 14 PIN IC |
| J701 | | 95S 90- 23- A | | TIN COATED |
| J702 | | 95S 90- 23- A | | TIN COATED |
| J703 | | 95S 90- 23- A | | TIN COATED |
| J704 | | 95S 90- 23- A | | TIN COATED |
| J705 | | 95S 90- 23- A | | TIN COATED |
| J707 | | 95S 90- 23- A | | TIN COATED |
| J709 | | 95S 90- 23- A | | TIN COATED |
| J710 | | 95S 90- 23- A | | TIN COATED |
| J711 | | 95S 90- 23- A | | TIN COATED |
| J712 | | 95S 90- 23- A | | TIN COATED |
| J713 | | 95S 90- 23- A | | TIN COATED |
| J714 | | 95S 90- 23- A | | TIN COATED |
| J715 | | 95S 90- 23- A | | TIN COATED |
| J716 | | 95S 90- 23- A | | TIN COATED |
| J717 | | 95S 90- 23- A | | TIN COATED |
| J718 | | 95S 90- 23- A | | TIN COATED |
| J719 | | 95S 90- 23- A | | TIN COATED |
| J720 | | 95S 90- 23- A | | TIN COATED |
| J722 | | 95S 90- 23- A | | TIN COATED |
| J723 | | 95S 90- 23- A | | TIN COATED |
| J725 | | 95S 90- 23- A | | TIN COATED |
| J726 | | 95S 90- 23- A | | TIN COATED |
| J727 | | 95S 90- 23- A | | TIN COATED |
| J728 | | 95S 90- 23- A | | TIN COATED |
| J729 | | 95S 90- 23- A | | TIN COATED |
| J730 | | 95S 90- 23- A | | TIN COATED |
| J731 | | 95S 90- 23- A | | TIN COATED |
| J732 | | 95S 90- 23- A | | TIN COATED |
| J733 | | 95S 90- 23- A | | TIN COATED |
| J734 | | 95S 90- 23- A | | TIN COATED |
| J735 | | 95S 90- 23- A | | TIN COATED |
| J736 | | 95S 90- 23- A | | TIN COATED |
| J737 | | 95S 90- 23- A | | TIN COATED |

| APPL. | SGPC-15 | SGPC-15V | SGPC-AI | SPECIFICATION |
|-------|--------------|----------|---------------|----------------------|
| J738 | | | 95S 90- 23- A | TIN COATED |
| J739 | | | 95S 90- 23- A | TIN COATED |
| J740 | | | 95S 90- 23- A | TIN COATED |
| J741 | | | 95S 90- 23- A | TIN COATED |
| J742 | | | 95S 90- 23- A | TIN COATED |
| J743 | | | 95S 90- 23- A | TIN COATED |
| J744 | | | 95S 90- 23- A | TIN COATED |
| J745 | | | 95S 90- 23- A | TIN COATED |
| J746 | | | 95S 90- 23- A | TIN COATED |
| J747 | | | 95S 90- 23- A | TIN COATED |
| J748 | | | 95S 90- 23- A | TIN COATED |
| J749 | | | 95S 90- 23- A | TIN COATED |
| J750 | | | 95S 90- 23- A | TIN COATED |
| J751 | | | 95S 90- 23- A | TIN COATED |
| J752 | | | 95S 90- 23- A | TIN COATED |
| J753 | | | 95S 90- 23- A | TIN COATED |
| J757 | | | 95S 90- 23- A | TIN COATED |
| J758 | | | 95S 90- 23- A | TIN COATED |
| J759 | | | 95S 90- 23- A | TIN COATED |
| J760 | | | 95S 90- 23- A | TIN COATED |
| J765 | | | 95S 90- 23- A | TIN COATED |
| J767 | | | 95S 90- 23- A | TIN COATED |
| J770 | | | 95S 90- 23- A | TIN COATED |
| L681 | 73C 259- 2- | | | 30UH +/-15% |
| L684 | 73C 259- 2- | | | 30UH +/-15% |
| L804 | 73C 145-569- | | | 5.6UH +/-10% |
| L805 | 73C 145-569- | | | 5.6UH +/-10% |
| LC801 | 53A 40- 1- | | | .022UF +50-20 50V 7A |
| P701 | 33T3072- 8- | | | 4P PLUG PLASTIC |
| P702 | 33T3072- 2- | | | 6P PLUG PLASTIC |
| P801 | 33T3072- 14- | | | 5P PLUG PLASTIC |
| P802 | 33A3072- 20- | | | 10P PLUG PLASTIC |
| P803 | 33T3072- 16- | | | 2P PLUG |
| P804 | 33T3072- 10- | | | 8P PLUG PLASTIC |
| P805 | 33T3072- 8- | | | 4P PLUG PLASTIC |
| Q701 | 57B 419- Q- | | | TRANSISTOR |
| Q702 | 57A 420- Q- | | | TRANSISTOR |
| Q703 | 57A 420- Q- | | | TRANSISTOR |
| Q704 | 57A 420- Q- | | | TRANSISTOR |
| Q706 | 57A 420- Q- | | | TRANSISTOR |
| Q707 | 57A 420- Q- | | | TRANSISTOR |
| Q708 | 57A 420- Q- | | | TRANSISTOR |
| Q709 | 57B 419- Q- | | | TRANSISTOR |
| Q710 | 57B 419- Q- | | | TRANSISTOR |
| Q711 | 57B 419- Q- | | | TRANSISTOR |
| Q801 | 57A 431- 3- | | | TRANSISTOR |
| Q802 | 57B 419- P- | | | TRANSISTOR |
| Q803 | 57B 420- P- | | | TRANSISTOR |
| Q804 | 57B 419- Q- | | | TRANSISTOR |
| Q805 | 57B 419- Q- | | | TRANSISTOR |
| Q806 | 57B 419- Q- | | | TRANSISTOR |
| Q807 | 57B 419- Q- | | | TRANSISTOR |
| Q808 | 57B 419- Q- | | | TRANSISTOR |
| Q809 | 57B 419- Q- | | | TRANSISTOR |
| Q810 | 57B 419- Q- | | | TRANSISTOR |

| APPL. | SGPC-15 | SGPC-15V | SGPC-AI | SPECIFICATION |
|-------|-------------|-----------------|---------|---------------------|
| Q811 | 57B 419- Q- | | | TRANSISTOR |
| Q812 | 57B 419- Q- | | | TRANSISTOR |
| Q814 | 57B 419- Q- | | | TRANSISTOR |
| Q815 | 57B 419- Q- | | | TRANSISTOR |
| Q816 | 57B 419- Q- | | | TRANSISTOR |
| Q817 | 57B 419- P- | | | TRANSISTOR |
| Q818 | 57B 419- P- | | | TRANSISTOR |
| Q819 | 57B 419- P- | | | TRANSISTOR |
| Q820 | 57B 419- P- | | | TRANSISTOR |
| Q821 | 57B 419- P- | | | TRANSISTOR |
| Q822 | 57B 419- P- | | | TRANSISTOR |
| Q823 | 57B 419- P- | | | TRANSISTOR |
| Q824 | 57B 419- P- | | | TRANSISTOR |
| Q825 | 57B 419- P- | | | TRANSISTOR |
| Q828 | 57B 419- P- | | | TRANSISTOR |
| Q829 | 57B 419- P- | | | TRANSISTOR |
| R681 | | 61S 172-102-52T | | 1K OHM 5% 1/4W |
| R684 | | 61S 172-102-52T | | 1K OHM 5% 1/4W |
| R701 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R702 | | 61S 602-563-52T | | 56K OHM +--5% 1/6W |
| R703 | | 61A 602-223-52T | | 22K OHM 5% 1/6W |
| R704 | | 61A 602-272-52T | | 2.7K OHM 5% 1/6W |
| R705 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R706 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |
| R707 | | 61A 602-222-52T | | 2.2K OHM +--5% 1/6W |
| R708 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R709 | | 61S 602-221-52T | | 220 OHM +--5% 1/6W |
| R710 | | 61A 602-103-52T | | 10K OHM 5% 1/6W |
| R711 | | 61S 602-221-52T | | 220 OHM +--5% 1/6W |
| R712 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R713 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R716 | | 61S 602-221-52T | | 220 OHM +--5% 1/6W |
| R718 | | 61A 602-332-52T | | 3.3K OHM 5% 1/6W |
| R719 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R720 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R721 | | 61S 602-101-52T | | 100 OHM 5% 1/6W |
| R722 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R723 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R724 | | 61S 172-471-52T | | 470 OHM 5% 1/4W |
| R725 | | 93C 64-11H-52T | | DIODE |
| R726 | | 93C 64-11H-52T | | DIODE |
| R727 | | 93C 64-11H-52T | | DIODE |
| R728 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R732 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R733 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R734 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R735 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R736 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R737 | | 61S 602-120-52T | | 12 OHM +--5% 1/6W |
| R801 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R802 | | 61S 602-122-52T | | 1.2K OHM +5% 1/6W |
| R803 | | 61S 175-751-52T | | 750 OHM +--5% 1/2W |
| R804 | | 61A 602-222-52T | | 2.2K OHM +--5% 1/6W |
| R805 | | 61A 602-222-52T | | 2.2K OHM +--5% 1/6W |
| R806 | | 61S 602-102-52T | | 1K OHM 5% 1/6W |

| APPL. | SGPC-15 | SGPC-15V | SGPC-A1 | SPECIFICATION |
|-------|---------|----------|-----------------|---------------------|
| R807 | | | 61A 602-392-52T | 3.9K OHM 5% 1/6W |
| R809 | | | 61S 602-102-52T | 1K OHM 5% 1/6W |
| R810 | | | 61S 172-151-52T | 150 OHM 5% 1/4W |
| R811 | | | 61A 602-751-52T | 750 OHM +--5% 1/6W |
| R812 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R813 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R814 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R815 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R816 | | | 61A 602-822-52T | 8.2K OHM +--5% 1/6W |
| R817 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R818 | | | 61S 602-111-52T | 110 OHM +--5% 1/6W |
| R819 | | | 61S 172-820-52T | 82 OHM +--5% 1/4W |
| R821 | | | 61S 602-102-52T | 1K OHM 5% 1/6W |
| R822 | | | 61S 172-151-52T | 150 OHM 5% 1/4W |
| R823 | | | 61A 602-751-52T | 750 OHM +--5% 1/6W |
| R824 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R825 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R826 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R827 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R828 | | | 61A 602-822-52T | 8.2K OHM +--5% 1/6W |
| R829 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R830 | | | 61S 602-111-52T | 110 OHM +--5% 1/6W |
| R831 | | | 61S 172-820-52T | 82 OHM +--5% 1/4W |
| R832 | | | 61A 602-222-52T | 2.2K OHM +--5% 1/6W |
| R833 | | | 61S 602-102-52T | 1K OHM 5% 1/6W |
| R834 | | | 61S 172-151-52T | 150 OHM 5% 1/4W |
| R835 | | | 61A 602-751-52T | 750 OHM +--5% 1/6W |
| R836 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R837 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R838 | | | 61A 602-681-52T | 680 OHM +--5% 1/6W |
| R839 | | | 61S 602-152-52T | 1.5K OHM +--5% 1/6W |
| R840 | | | 61A 602-822-52T | 8.2K OHM +--5% 1/6W |
| R841 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R842 | | | 61S 602-111-52T | 110 OHM +--5% 1/6W |
| R843 | | | 61S 172-820-52T | 82 OHM +--5% 1/4W |
| R845 | | | 61A 602-561-52T | 560 OHM +--5% 1/6W |
| R850 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R851 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R852 | | | 61S 602-471-52T | 470 OHM +--5% 1/6W |
| R853 | | | 61A 602-272-52T | 2.7K OHM 5% 1/6W |
| R854 | | | 61A 602-103-52T | 10K OHM 5% 1/6W |
| R855 | | | 61A 602-823-52T | 82K OHM +--5% 1/6W |
| R856 | | | 61A 602-103-52T | 10K OHM 5% 1/6W |
| R857 | | | 61S 602-122-52T | 1.2K OHM +5% 1/6W |
| R858 | | | 61S 602-221-52T | 220 OHM +--5% 1/6W |
| R859 | | | 61A 602-222-52T | 2.2K OHM +--5% 1/6W |
| R860 | | | 61S 602-563-52T | 56K OHM +--5% 1/6W |
| R861 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R862 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R863 | | | 61A 602-222-52T | 2.2K OHM +--5% 1/6W |
| R864 | | | 61A 602-331-52T | 330 OHM 5% 1/6W |
| R865 | | | 61A 602-822-52T | 8.2K OHM +--5% 1/6W |
| R866 | | | 61A 602-222-52T | 2.2K OHM +--5% 1/6W |
| R867 | | | 61A 602-272-52T | 2.7K OHM 5% 1/6W |
| R868 | | | 61A 602-123-52T | 12K OHM 5% 1/6W |

| APPL. | SGPC-15 | SGPC-15V | SGPC-AI | SPECIFICATION |
|-------|--------------|----------|-----------------|--------------------|
| R869 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R870 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R871 | | | 61A 602-222-52T | 2.2K OHM +-5% 1/6W |
| R872 | | | 61A 602-822-52T | 8.2K OHM +-5% 1/6W |
| R873 | | | 61A 602-822-52T | 8.2K OHM +-5% 1/6W |
| R874 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R875 | | | 61A 602-103-52T | 10K OHM 5% 1/6W |
| R876 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R878 | | | 61A 602-222-52T | 2.2K OHM +-5% 1/6W |
| R879 | | | 61A 602-222-52T | 2.2K OHM +-5% 1/6W |
| R881 | | | 61A 602-222-52T | 2.2K OHM +-5% 1/6W |
| R882 | | | 61A 602-331-52T | 330K OHM +-5% 1/6W |
| R884 | | | 61A 602-562-52T | 5.6K OHM 5% 1/6W |
| R886 | | | 61A 602-109-52T | 10HM +-5% 1/6W |
| R887 | | | 61A 602-392-52T | 3.9K OHM 5% 1/6W |
| R888 | | | 61A 602-122-52T | 1.2K OHM +5% 1/6W |
| R890 | | | 61A 602-511-52T | 510 OHM +-5% 1/6W |
| R895 | | | 61A 602-822-52T | 8.2K OHM +-5% 1/6W |
| R896 | | | 61A 602-394-52T | 390K OHM +-5% 1/6W |
| R897 | | | 61A 602-223-52T | 22K OHM 5% 1/6W |
| R898 | | | 61A 602-223-52T | 22K OHM 5% 1/6W |
| R899 | | | 61A 602-332-52T | 3.3K OHM 5% 1/6W |
| R8A1 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A2 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A4 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A5 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A6 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A7 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8A8 | | | 61S 602-563-52T | 56K OHM +-5% 1/6W |
| R8B1 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B2 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B4 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B5 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B6 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B7 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| R8B8 | | | 61S 602-471-52T | 470 OHM +-5% 1/6W |
| SW801 | 77A 413- 1- | | | SIGNAL SW |
| VR701 | 75A 323-501- | | | 500 OHM +-20% |
| VR702 | 75A 323-501- | | | 500 OHM +-20% |
| VR703 | 75A 323-501- | | | 500 OHM +-20% |
| ZD801 | | | 93D 39- 80-52T | 9.1V +-5% 1/2W |
| ZD802 | | | 93D 39- 52-52T | DIODE |

| APPL. | CMC-15V | CMC-15Z | SPECIFICATION |
|-----------------|-------------|-----------------|----------------------|
| | CMPC-15V | CMPC-15Z | PC BOARD |
| | CNPC-15V | CNPC-15Z | PC BOARD |
| | CRPC-15 | CRPC-15Z | CONTROL BOARD |
| | SGPC-15V | SGPC-15V | PC BOARD |
| 3C | 1- 3-106 | 3C 1- 3-106 | #6 E.T. |
| 5B | 38- 16- | 5B 38- 16- | RUBBER PAD |
| 15T5292- | 2- | 15T5292- 2- | TERNEPLATE |
| 15T5399- | 1- | 15T5399- 1- | TERNEPLATE |
| 19T | 527- 1- | 19T 527- 1- | STEEL WIRE |
| 33T3262- | 9- | 33T3262- 9- | A.B.S. PLASTIC |
| 40A | 581- 26-011 | 40A 581- 26-011 | LABEL/BLANK |
| 50S | 102- 5- | 50S 102- 5- | PLASTIC |
| 77A | 306- 4- | 77A 306- 4- | POWER SW (DPST) |
| 87A | 501- 1- | 87A 501- 1- | 6A 250V AC |
| 87A | 501- 3- | 87A 501- 3- | AC SOCKET |
| 89A8310- | 1- | 89A8310- 1- | UL2464#18x4C |
| 95S207T-354-033 | | 955207T-354-033 | UL1015#18/GRN,YEL |
| 95A3253- | 3- 1- | 95A3253- 3- 1 | UL1015#20/3P HOUSING |
| 96 | 29- 6-200 | 96 29- 6-200 | H.S. TUBING UL/CSA |
| K1S | 404-603-120 | K1S 404-603-120 | #6x3/8 |
| M1S | 330- 7-128 | M1S 330- 7-128 | M3x7 STEEL |
| M1S | 440- 6-127 | M1S 440- 6-127 | M4x6 |
| 700 | 99- 42- | 700 99- 42- | AS REQUEST |
| SW805 | 77A 403- 3- | 77A 403- 3- | SWITCH |



| APPL. | 700 99- 42- | SPECIFICATION |
|-------|-------------|----------------------|
| | 55C 1- 51- | SOLDER BAR |
| | 55B 1- 56- | 63/37 0.05" (1.27MM) |
| | 55C 23- 13- | KESTER FLUX #933 |
| | 55C 23- 14- | THINNER #108 |

| APPL. | CRPC-15 | CRPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|----------------------|
| | 1T 420- 3-128 | 1T 420- 3-128 | 3MMx8 STEEL |
| | 87A 400- 1- | 87A 400- 1- | CRT SOCKET |
| | 95A1019-608- 3 | 95A1019-608- 3 | UL2468#24/WHTx3C |
| | 95A1019-608- 6 | 95A1019-608- 6 | UL2464#24/6P HOUSING |
| | 715A 295- 3- | 715A 295- 3- | 122.0x110.0x1.6MM |
| C690 | 67S 201-471- 2 | 67S 201-471- 2 | 470UF +100-10% 10V |
| C901 | 67S 201-100- 10 | 67S 201-100- 10 | 10UF +100-10% 160V |
| C902 | 67A 201-109- 13 | 67A 201-109- 13 | 1UF +100-10% 350V |
| C903 | 67A 301-101- 3 | 67A 301-101- 3 | 100UF +100-10% 15V |
| C904 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C905 | 67S 201-100- 11 | 67S 201-100- 11 | 10UF 200V |
| C906 | 65A517K-102- 2A | 65A517K-102- 2A | 0.001UF 500V Z5U |
| C907 | 65S 450-103- 3 | 65S 450-103- 3 | 10000PF 50V Z5U |
| C909 | 65A 2M-103- 3B | 65A 2M-103- 3B | 0.01UF 2KV 20% Z5U |
| C910 | 65A517K-103- 1B | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C911 | 65A517K-103- 1B | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C912 | 65A517K-103- 1B | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C913 | 65A517K-103- 1B | 65A517K-103- 1B | 10000PF K Z5F 500V |
| C914 | 67A 301-470- 3 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C915 | 67A 301-470- 3 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C916 | 67A 301-470- 3 | 67A 301-470- 3 | 47UF +100-10% 15V |
| C917 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C918 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C919 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C920 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C921 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| C922 | 67A 301-229- 11 | 67A 301-229- 11 | 2.2UF +100-10% 200V |
| D902 | 93C 60- 38- | 93C 60- 38- | 1A 200V |
| D903 | 93C 60- 38- | 93C 60- 38- | 1A 200V |
| D904 | 93C 60- 38- | 93C 60- 38- | 1A 200V |
| J901 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J902 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J903 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J904 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J905 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J906 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J907 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J908 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J909 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J910 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| J911 | 95S 90- 22- | 95S 90- 22- | #22 TIN COATED |
| L685 | 73C 259- 2- | 73C 259- 2- | 30UH +/-15% |
| L901 | 73C 145-479- | 73C 145-479- | 4.7UF +-10% |
| L902 | 73C 145-479- | 73C 145-479- | 4.7UH +-10% |
| L903 | 73C 145-479- | 73C 145-479- | 4.7UH +-10% |
| P902 | 33T3072- 12- | 33T3072- 12- | 3P PLUG PLASTIC |
| Q901 | 57A 545- 1- | 57A 545- 1- | TRANSISTOR |
| Q901 | 90T 185- 1- | 90T 185- 1- | ALUMINUM |
| Q902 | 57A 545- 1- | 57A 545- 1- | TRANSISTOR |
| Q902 | 90T 185- 1- | 90T 185- 1- | ALUMINUM |
| Q903 | 57A 545- 1- | 57A 545- 1- | TRANSISTOR |
| Q903 | 90T 185- 1- | 90T 185- 1- | ALUMINUM |
| R902 | 33T3072- 12- | 61S 175-332- 64 | 3P PLUG PLASTIC |
| R902 | 61S 175-332- 64 | 61S 175-332- 64 | 3K3 OHM 5% 1/2W |

| APPL. | CRPC-15 | CRPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|------------------|
| R903 | 61S 172-564- 57 | 61S 172-564- 57 | 560K OHM 5% 1/4W |
| R904 | 61S 175-333- 64 | 61S 175-333- 64 | 33K OHM 5% 1/2W |
| R905 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R906 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R907 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R908 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R909 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R910 | 61S 172-102- 57 | 61S 172-102- 57 | 1K OHM 5% 1/4W |
| R911 | 61S155M-821- 61 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R912 | 61S155M-821- 61 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R913 | 61S155M-821- 61 | 61S155M-821- 61 | 820 OHM 5% 5W |
| R914 | 61S 172-563- 57 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R915 | 61S 172-563- 57 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R916 | 61S 172-563- 57 | 61S 172-563- 57 | 56K OHM 5% 1/4W |
| R920 | 61S 172-122- 57 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R921 | 61S 172-122- 57 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R922 | 61S 172-122- 57 | 61S 172-122- 57 | 1.2K OHM 5% 1/4W |
| R923 | 61S 172-104- 57 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R924 | 61S 172-104- 57 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R925 | 61S 172-104- 57 | 61S 172-104- 57 | 100K OHM 5% 1/4W |
| R926 | 61S 175-331- 64 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| R927 | 61S 175-331- 64 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| R928 | 61S 175-331- 64 | 61S 175-331- 64 | 330 OHM 5% 1/2W |
| VR903 | 75A 325-503- | 75A 325-503- | 50K OHM +20% |
| VR904 | 75A 325-503- | 75A 325-503- | 50K OHM +20% |
| VR905 | 75A 325-503- | 75A 325-503- | 50K OHM +20% |

| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|-----------------|-------------|----------------------|
| | CM314-AI | | | | AUTO INSERTION |
| | 1T 420- 3-120 | CMPC-15 | | CMPC-15 | 14" MAIN BOARD |
| | 2T 202- 2- | | | | 3MMx8 STEEL |
| | 5B 38- 8- | | | | STAINLESS STEEL |
| | 5B 39- 8- | | | | RUBBER WASHER |
| | 9A 92- 13- | | | | WASHER |
| | 9S 203- 8- | | 9S 203- 8- | | BRASS |
| | 9S 206- 5- | | | | BRASS |
| | 11T 84- 1- | | | | CONNECTOR |
| | 15T5316- 1- | | | | NYLON |
| | 32 3028- 3- | | | | TERNEPLATE |
| | | 40 154- 8- | 40 154- 8- | | MICA |
| 52D | 1-191- | | | | LABEL |
| 52D | 1-192- | | | | GLASS CLOTH |
| | 90T 186- 2- | | | | GLASS CLOTH |
| | 90 189- 6- | | | | ALUMINUM |
| | 90T 190- 1- | | 90T 190- 1- | | HEAT SINK |
| | 90T 208- 2- | | | 90S 90- 22- | ALUMINUM |
| | 95S 203- 30-102 | | | | HEAT SINK |
| | 95S 203- 32-102 | | | | #22 TIN COATED |
| | 95S 203- 33-102 | | | | UL1015#18/BLK |
| | 95S 203- 36-102 | | | | UL1015#18/RED |
| | 95S 203- 59-152 | | | | UL1015#18/ORG |
| | 95A1019-607- 4 | | | | UL1015#18/BLUE |
| | 95A1019-610- 4 | | | | UL1007#22/WHT STRAND |
| | 95S3261- 2- | | | | UL2464#24/4P HOUSING |
| | K1S 330- 10-128 | | | | UL2464#24/4P HOUSING |
| | K1S 330- 14-128 | | | | UL1015#22/WHT |
| | K1S 404-603-120 | K1S 404-603-120 | K1S 404-603-120 | | M3x10 |
| | M2S 430-2.4-128 | | | | M3x14 |
| | 715A 418- 1- | | | | #6x3/8 |
| | | | | | M3 |
| | | | | | 246.0x278.0x1.6MM |
| AS002 | | 51A 2- 11- | 51A 2- 11- | 51A 2- 11- | HOT MELT GLUE |
| AS002 | | 51A 2- 12- | 51A 2- 12- | 51A 2- 12- | HOT MELT GLUE |
| C2001 | 67A 301-470- 7 | | | | 47UF +100-10% 50V |
| C2002 | 67A 301-470- 3 | | | | 47UF +100-10% 15V |
| C2004 | 67A 301-100- 7 | | | | 10UF +100-10% 50V |
| C2006 | 67A 301-470- 3 | | | | 47UF +100-10% 15V |
| C401 | 67A 301-101- 3 | | | | 100UF +100-10% 15V |
| C402 | 64A 177- 2- 58 | | | | 0.0012UF J 50V |
| C403 | 64A 177- 25- 57 | | | | 0.1UF J 50V |
| C404 | 64A 177- 10- 58 | | | | 0.0056UF J 50V |
| C405 | 64A 177- 17- 58 | | | | 0.022UF J 50V |
| C406 | 64A 177- 21- 58 | | | | 0.047UF J 50V |
| C407 | 67S 202-688- 7 | | | | 0.68U 35V + -10% |
| C408 | 67S 201-222- 4 | | | | 2200UF +100-10% 25V |
| C409 | 67S 201-221- 6 | | | | 220UF +100-10% 35V |
| C410 | 67S 201-101- 6 | | | | 100UF +100-10% 35V |
| C411 | 65S 444-561- 1 | | | | 560PF K Z5P 50V |
| C412 | 65S 444-101- 1 | | | | 100PF K Z5P 50V |
| C413 | 67S 202-478- 7 | | | | 0.47U 35V + -10% |
| C414 | 67A 301-101- 4 | | | | 100UF +100-10% 25V |
| C415 | 67A 402-109- 7 | | | | 1UF 50V + -20% |
| C416 | 67A 60-220- 3 | | | | 22UF 16V NP |

| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|----------|-----------------|----------|----------|----------------------|
| C417 | | 65S 450-472- 3 | | | .0047UF Z5U 50V |
| C419 | | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C420 | | 65S 444-561- 1 | | | 560PF K Z5P 50V |
| C421 | | 65S 450-103- 3 | | | 10000PF 50V Z5U |
| C422 | | 67S 201-101- 6 | | | 100UF +100-10% 35V |
| C460 | | 67S 202-109- 7 | | | 1UF +-10% 35V |
| C461 | | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C462 | | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C463 | | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C464 | | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C465 | | 67A 301-100- 7 | | | 10UF +100-10% 50V |
| C466 | | 67S 202-109- 7 | | | 1UF +-10% 35V |
| C467 | | 65A 452-104- 4 | | | .1UF +80-20% 16V Z5V |
| C470 | | 67A 301-470- 3 | | | 47UF +100-10% 15V |
| C501 | | 65S 442-101- 1 | | | 100PF J NPO 50V |
| C502 | | 64A 103- 54- | | | .0022UF +/-5% 50V |
| C503 | | 65S 442-271- 1 | | | 270PF 5% 50V NPO |
| C504 | | 64A 177- 11- 58 | | | 0.0068UF J 50V |
| C505 | | 67S 202-109- 7 | | | 1UF +-10% 35V |
| C506 | | 64A 177- 13- 58 | | | 0.01UF J 50V |
| C507 | | 67S 202-109- 7 | | | 1UF +-10% 35V |
| C508 | | 64A 103- 55- | | | .0033UF +/-5% 50V |
| C509 | | 67S 201-221- 3 | | | 220UF +100-10% 15V |
| C510 | | 64A 177- 13- 58 | | | 0.01UF J 50V |
| C511 | | 67A 402-109- 7 | | | 1UF 50V +-20% |
| C512 | | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C513 | | 63A 210- 29- | | | 3600PF J 2KV |
| C514 | | 63A 210- 30- | | | 4300PF J 2KV |
| C515 | | 64A 140- 53- 64 | | | .027UF +/-5% 400V |
| C516 | | 67S 201-100- 10 | | | 10UF +100-10% 160V |
| C517 | | 64A 140- 52- 64 | | | 0.022UF J 400V |
| C518 | | 67S 201-100- 11 | | | 10UF 200V |
| C519 | | 67S 201-220- 9 | | | 22UF +100-10% 100V |
| C520 | | 65A517K-561- 2A | | | 560PF K Z5P 500V |
| C521 | | 65A517K-331- 2A | | | 330PF K Z5P 500V |
| C522 | | 63A 210- 34- | | | 640000PF 200V |
| C523 | | 63A 210- 33- | | | 68000PF 1KV |
| C524 | | 65A517K-221- 2A | | | 220PF K Z5P 500V |
| C526 | | 64A 177- 25- 57 | | | 0.1UF J 50V |
| C527 | | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C551 | | 64A 177- 3- 58 | | | 0.0015UF J 50V |
| C552 | | 67S 202-229- 7 | | | 2.2UF +-10% 35V |
| C553 | | 67A 301-470- 4 | | | 47UF +100-10% 25V |
| C557 | | 63A 210- 34- | | | 640000PF 200V |
| C558 | | 63A 210- 34- | | | 640000PF 200V |
| C559 | | 65S 450-103- 3 | | | 10000PF 50V Z5U |
| C560 | | 65S 450-103- 3 | | | 10000PF 50V Z5U |
| C561 | | 65S 450-103- 3 | | | 10000PF 50V Z5U |
| C562 | | 65S 442-101- 1 | | | 100PF J NPO 50V |
| C563 | | 64A 103- 54- | | | .0022UF +/-5% 50V |
| C565 | | 64A 103- 16- | | | .01UF K 50V |
| C566 | | 64A 103- 56- | | | .0039UF +/-5% 50V |
| C567 | | 65S 444-102- 1 | | | 1000PF K Z5P 50V |
| C568 | | 65S 444-681- 1 | | | 680PF K Z5P 50V |



| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|-----------------|----------------|----------------|----------------|----------------------|
| C601 | | | 63A 107- 7- | | 1 UF +—20% 250V AC |
| C603 | | | 65A305M-472-2B | 65A305M-472-2B | 4700P +—20% 400VAC |
| C604 | | | 65A305M-472-2B | 65A305M-472-2B | 4700P +—20% 400VAC |
| C606 | 65A517K-472- 1B | | | | 4700PF K Z5F 500V |
| C607 | 65A517K-472- 1B | | | | 4700PF K Z5F 500V |
| C608 | 65A517K-472- 1B | | | | 4700PF K Z5F 500V |
| C609 | 65A517K-472- 1B | | | | 4700PF K Z5F 500V |
| C610 | | 67D 30- 49- | 67D 30- 49- | | 470UF 250V 105C |
| C611 | | 67D 30- 49- | 67D 30- 49- | | 470UF 250V 105C |
| C612 | | 65A305M-332-2B | 65A305M-352-2B | | 3300PF +—20% 400V AC |
| C613 | | 65A305M-332-2B | 65A305M-332-2B | | 3300PF +—20% 400V AC |
| C621 | 65A 2K-561-2BN | | | | 560PF K 2KV BN |
| C622 | 67A 301-220- 4 | | | | 22UF +100—10% 25V |
| C623 | 67A 301-220- 4 | | | | 22UF +100—10% 25V |
| C624 | 64A 177- 58- 57 | | | | 0.1UF 100V 5% |
| C641 | 67D 30- 38- | | | | 470UF 200V |
| C642 | 67A 301-478- 10 | | | | .47UF +100—10% 160V |
| C463 | 64A 177- 13- 58 | | | | 0.01UF J 50V |
| C661 | 64A 177- 27- 57 | | | | 0.15UF J 50V |
| C662 | 67A 301-100- 7 | | | | 10UF +100—10% 50V |
| C663 | 65A 2K-561-2BN | | | | 560PF K 2KV BN |
| C664 | 65S 450-473- 4 | | | | .047UF Z5V 50V |
| C665 | 67S 201-471- 2 | | | | 470UF +100—10% 10V |
| C666 | 67A 301-101- 2 | | | | 100UF +100—10% 10V |
| C681 | 67S 201-102- 1 | | | | 1000UF +100—10% 6.3V |
| C683 | 67S 201-101- 9 | | | | 100UF +100—10% 100V |
| C684 | 67S 201-470- 9 | | | | 47UF +100—10% 100V |
| C685 | 67S 201-102- 6 | | | | 1000UF +100—10% 35V |
| C686 | 67S 201-331- 6 | | | | 330UF +100—10% 35V |
| C687 | 67S 201-102- 3M | | | | 1000UF +100—10% 15V |
| C689 | 67 201-102- 2 | | | | 1000UF +100—10% 10V |
| C691 | 64A 177- 1- 58 | | | | 0.001UF J 50V |
| D2001 | 93C 60- 38-52T | | | | 1A 200V |
| D2002 | 93C 64-11H-52T | | | | DIODE |
| D2004 | 93C 60- 38-52T | | | | 1A 200V |
| D2005 | 93C 64-11H-52T | | | | DIODE |
| D401 | 93C 64-11H-52T | | | | DIODE |
| D402 | 93C 64-11H-52T | | | | DIODE |
| D403 | 93C 64-11H-52T | | | | DIODE |
| D404 | 93C 60- 38-52T | | | | 1A 200V |
| D405 | 93C 64-11H-52T | | | | DIODE |
| D460 | 93C 64-11H-52T | | | | DIODE |
| D461 | 93C 64-11H-52T | | | | DIODE |
| D462 | 93C 64-11H-52T | | | | DIODE |
| D470 | 93C 60- 38-52T | | | | 1A 200V |
| D501 | 93C 60- 81-52T | | | | F.R.D. 1450V/5A |
| D502 | 93D 60- 62-52T | | | | 1A/1500A 250 N.S. |
| D503 | 93C 60- 38-52T | | | | 1A 200V |
| D504 | 93C 60- 38-52T | | | | 1A 200V |
| D505 | 93C 60- 38-52T | | | | 1A 200V |
| D506 | 93C 64-11H-52T | | | | DIODE |
| D551 | 93C 64-11H-52T | | | | DIODE |
| D552 | 93C 64-11H-52T | | | | DIODE |
| D553 | 93C 64-11H-52T | | | | DIODE |
| D554 | 93C 60- 38-52T | | | | 1A 200V |
| D555 | 93C 60- 38-52T | | | | 1A 200V |
| D507 | 90C 60- 81- | | | | F.R.D. 1450V/5A |

| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|----------------|----------------|------------|------------|------------------|
| D556 | 93C 64-11H-52T | | | | DIODE |
| D601 | 93C 52- 9-52T | | | | 2A 600V |
| D602 | 93C 52- 9-52T | | | | 2A 600V |
| D603 | 93C 52- 9-52T | | | | 2A 600V |
| D604 | 93C 52- 9-52T | | | | 2A 600V |
| D605 | 93C 52- 14-52T | | | | 50A/1A RECTIFIER |
| D606 | 93C 52- 14-52T | | | | 50A/1A RECTIFIER |
| D607 | 93C 52- 14-52T | | | | 50A/1A RECTIFIER |
| D608 | 93C 52- 14-52T | | | | 50A/1A RECTIFIER |
| D621 | 93C 64-11H-52T | | | | DIODE |
| D622 | 93C 60- 77-52T | | | | F.R.D. 100V/1A |
| D641 | 93C 60- 71-52T | | | | F.R.D. 400V/1.5A |
| D642 | 93C 64-11H-52T | | | | DIODE |
| D644 | 93C 64-11H-52T | | | | DIODE |
| D661 | 93C 60- 47-52T | | | | F.R.D. 600V/0.5A |
| D662 | 93C 60- 77-52T | | | | F.R.D. 100V/1A |
| D665 | 93C 60- 77-52T | | | | F.R.D. 100V/1A |
| D666 | 93C 64-11H-52T | | | | DIODE |
| D668 | 93C 60- 77-52T | | | | F.R.D. 100V/1A |
| D682 | 93D 60- 21-52T | | | | FRD 1.5A 500V |
| D683 | | 93D 60- 70- | | | 3A 600V FRD |
| D683 | 93C 60- 70-52T | | | | F.R.D. 600V/3A |
| D684 | 93D 60- 72-52T | | | | F.R.D. 1A 200V |
| D685 | | 93D 60- 93- | | | 3A 40V SR340 |
| D686 | 93C 64-11H-52T | | | | DIODE |
| F601 | | | 84A 38- 8- | 84A 38- 8- | FUSE 2.5A/250V |
| FH001 | | 84B 33- 4- | | | FUSE CLIP |
| FH001 | | 84C 33- 7- | | | FUSE CLIP |
| IC401 | | 56A 326- 1- | | | 20 PIN I.C |
| IC402 | | 56A 327- 1- | | | 7 PIN I.C |
| IC451 | | 56A74LS-221- H | | | 16 PIN IC |
| IC551 | | 56A 329- 1- | | | 8 PIN I.C |
| IC552 | | 56A 328- 1- | | | IC |
| IC553 | | 56A 210- 2- | | | IC |
| IC554 | | 56A 328- 1- | | | IC |
| IC555 | | 56A 265- 2- | | | 4 PIN IC PC817 |
| IC621 | | 56A 161- 1- | | | 4 PIN IC PC817 |
| IC622 | | 56A 161- 1- | | | 3 PIN IC |
| IC641 | | 56A 158- 1- | | | 4 PIN IC PC817 |
| IC661 | | 56A 161- 1- | | | TIN COATED |
| J702 | 95S 90- 23- A | | | | TIN COATED |
| J703 | 95S 90- 23- A | | | | TIN COATED |
| J704 | 95S 90- 23- A | | | | TIN COATED |
| J705 | 95S 90- 23- A | | | | TIN COATED |
| J706 | 95S 90- 23- A | | | | TIN COATED |
| J707 | 95S 90- 23- A | | | | TIN COATED |
| J708 | 95S 90- 23- A | | | | TIN COATED |
| J709 | 95S 90- 23- A | | | | TIN COATED |
| J710 | 95S 90- 23- A | | | | TIN COATED |
| J711 | 95S 90- 23- A | | | | TIN COATED |
| J712 | 95S 90- 23- A | | | | TIN COATED |
| J713 | 95S 90- 23- A | | | | TIN COATED |
| J714 | 95S 90- 23- A | | | | TIN COATED |
| J715 | 95S 90- 23- A | | | | TIN COATED |



| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|---------------|--------------|----------|----------|---------------|
| J716 | 95S 90- 23- A | | | | TIN COATED |
| J717 | 95S 90- 23- A | | | | TIN COATED |
| J718 | 95S 90- 23- A | | | | TIN COATED |
| J719 | 95S 90- 23- A | | | | TIN COATED |
| J720 | 95S 90- 23- A | | | | TIN COATED |
| J721 | 95S 90- 23- A | | | | TIN COATED |
| J722 | 95S 90- 23- A | | | | TIN COATED |
| J723 | 95S 90- 23- A | | | | TIN COATED |
| J724 | 95S 90- 23- A | | | | TIN COATED |
| J725 | 95S 90- 23- A | | | | TIN COATED |
| J726 | 95S 90- 23- A | | | | TIN COATED |
| J727 | 95S 90- 23- A | | | | TIN COATED |
| J728 | 95S 90- 23- A | | | | TIN COATED |
| J729 | 95S 90- 23- A | | | | TIN COATED |
| J730 | 95S 90- 23- A | | | | TIN COATED |
| J731 | 95S 90- 23- A | | | | TIN COATED |
| J733 | 95S 90- 23- A | | | | TIN COATED |
| J734 | 95S 90- 23- A | | | | TIN COATED |
| J735 | 95S 90- 23- A | | | | TIN COATED |
| J736 | 95S 90- 23- A | | | | TIN COATED |
| J737 | 95S 90- 23- A | | | | TIN COATED |
| J738 | 95S 90- 23- A | | | | TIN COATED |
| J739 | 95S 90- 23- A | | | | TIN COATED |
| J740 | 95S 90- 23- A | | | | TIN COATED |
| J741 | 95S 90- 23- A | | | | TIN COATED |
| J742 | 95S 90- 23- A | | | | TIN COATED |
| J743 | 95S 90- 23- A | | | | TIN COATED |
| J744 | 95S 90- 23- A | | | | TIN COATED |
| J745 | 95S 90- 23- A | | | | TIN COATED |
| J746 | 95S 90- 23- A | | | | TIN COATED |
| J747 | 95S 90- 23- A | | | | TIN COATED |
| J748 | 95S 90- 23- A | | | | TIN COATED |
| J749 | 95S 90- 23- A | | | | TIN COATED |
| J750 | 95S 90- 23- A | | | | TIN COATED |
| J751 | 95S 90- 23- A | | | | TIN COATED |
| J752 | 95S 90- 23- A | | | | TIN COATED |
| J753 | 95S 90- 23- A | | | | TIN COATED |
| J754 | 95S 90- 23- A | | | | TIN COATED |
| J755 | 95S 90- 23- A | | | | TIN COATED |
| J756 | 95S 90- 23- A | | | | TIN COATED |
| J757 | 95S 90- 23- A | | | | TIN COATED |
| J758 | 95S 90- 23- A | | | | TIN COATED |
| J759 | 95S 90- 23- A | | | | TIN COATED |
| J760 | 95S 90- 23- A | | | | TIN COATED |
| J761 | 95S 90- 23- A | | | | TIN COATED |
| J762 | 95S 90- 23- A | | | | TIN COATED |
| J763 | 95S 90- 23- A | | | | TIN COATED |
| J764 | 95S 90- 23- A | | | | TIN COATED |
| J765 | 95S 90- 23- A | | | | TIN COATED |
| J766 | 95S 90- 23- A | | | | TIN COATED |
| J832 | 95S 90- 23- A | | | | TIN COATED |
| L501 | | 73C 253- 37- | | | 50UH |
| L502 | | 73C 253- 32- | | | 5.6UH 3A |
| L504 | | 93C 147- 26- | | | 8.2UH +/-15% |
| L505 | | 94A 483- 21- | | | WIDTH COIL |



| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|-----------------|--------------|-------------|-------------|---------------------|
| L507 | | 73A 253- 42- | | | 5.4MH 800MA |
| L601 | | | 73C 173- 1- | 73C 173- 1- | 25 MH |
| L602 | | | 73C 173- 2- | | 3MH |
| L621 | | 73C 259- 1- | | | 10UH +/-15% |
| L661 | | 73C 259- 4- | | | 200UH +/-5% |
| L662 | | 73C 259- 3- | | | 100UH +/-10% |
| L682 | | 73C 259- 4- | | | 200UH +/-5% |
| L683 | | 73C 259- 2- | | | 30UH +/-15% |
| LC401 | | 53A 40- 1- | | | 022UF +50-20 50V 7A |
| N001 | | 50B 13- 1- | | | PLASTIC TIE |
| N001 | | 50T 106- 1- | | | CABLE TIE |
| P401 | | 33T3072- 2- | | | 6P PLUG PLASTIC |
| P500 | | 33T3074- 5- | | | 6P PLUG |
| P502 | | 33T3072- 8- | | | 4P PLUG PLASTIC |
| P503 | | 33T3074- 1- | | | 2P PLUG |
| P601 | | 33A3355- 1- | | | 2 PIN PLUG |
| P602 | | 33T3074- 1- | | | 2P PLUG |
| P603 | | 33A3355- 1- | | | 2 PIN PLUG |
| P604 | | 33A3355- 1- | | | 2 PIN PLUG |
| P605 | | 33T3072- 12- | | | 3P PLUG PLASTIC |
| Q2001 | | 57A 420- Q- | | | TRANSISTOR |
| Q2002 | | 57B 419- Q- | | | TRANSISTOR |
| Q401 | | 57B 419- Q- | | | TRANSISTOR |
| Q402 | | 57A 549- 1- | | | TRANSISTOR |
| Q403 | | 57A 507- L- | | | TRANSISTOR |
| Q404 | | 57B 419- Q- | | | TRANSISTOR |
| Q405 | | 57A 553- 1- | | | TRANSISTOR |
| Q460 | | 57A 420- Q- | | | TRANSISTOR |
| Q501 | | 57B 419- Q- | | | TRANSISTOR |
| Q502 | | 57A 521- C- | | | TRANSISTOR |
| Q503 | | 57A 551- 1- | | | TRANSISTOR |
| Q504 | | 57B 419- Q- | | | TRANSISTOR |
| Q551 | | 57A 552- P- | | | TRANSISTOR |
| Q551 | | 57A 552- Q- | | | TRANSISTOR |
| Q552 | | 57B 419- Q- | | | TRANSISTOR |
| Q554 | | 57A 554- 1- | | | TRANSISTOR |
| Q557 | | 57A 554- 3- | | | TRANSISTOR |
| Q558 | | 57A 554- 3- | | | TRANSISTOR |
| Q621 | | 57A 560- 1- | | | TRANSISTOR |
| Q621 | | 57A 573- 1- | | | TRANSISTOR |
| Q622 | | 57A 446- 1- | | | TRANSISTOR |
| Q641 | | 57A 423- 8T- | | | TRANSISTOR |
| Q661 | | 57A 560- 1- | | | TRANSISTOR |
| Q661 | | 57A 573- 1- | | | TRANSISTOR |
| Q662 | | 57A 507- 1- | | | TRANSISTOR |
| Q662 | | 57A 507- 2- | | | TRANSISTOR |
| Q663 | | 57A 446- 1- | | | TRANSISTOR |
| Q664 | | 57B 419- P- | | | TRANSISTOR |
| Q665 | | 57A 446- 1- | | | TRANSISTOR |
| Q681 | | 57B 419- P- | | | TRANSISTOR |
| R2001 | 61S 172-229-52T | | | | 2.2 OHM +/-5% 1/4W |
| R2002 | 61S 172-682-52T | | | | 6.8K OHM 5% 1/4W |
| R2004 | 61A 602-682-52T | | | | 3.8K OHM 5% 1/6W |
| R2005 | 61A 602-222-52T | | | | 2K2 OHM 5% 1/6W |
| R2006 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |

1950 SERVICE MANUAL

| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|-----------------|-----------------|--------------------|
| R2007 | 61S 172-229-52T | | | | 2.2 OHM +–5% 1/4W |
| R2008 | 61A 602-682-52T | | | | 6.8K OHM 5% 1/6W |
| R2009 | 61A 602-222-52T | | | | 2.2K OHM 5% 1/6W |
| R2010 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R2011 | 61A 602-123-52T | | | | 12K OHM 5% 1/6W |
| R401 | | 61S152M-221- 64 | | | 220 OHM 5% 2W |
| R402 | | 61A 602-364- 65 | | | 360K OHM +–5% 1/6W |
| R403 | | 61A 602-563- 65 | | | 56K OHM 5% 1/6W |
| R404 | | 61A 602-473- 65 | | | 47K OHM 5% 1/6W |
| R405 | | 61A 602-331- 65 | | | 330 OHM 5% 1/6W |
| R406 | | 61A 602-561- 65 | | | 560 OHM 5% 1/6W |
| R407 | | 61S152M-189- 64 | | | 1.8 OHM +–5% 2W |
| R408 | | | 61S 175-471- 64 | 61S 175-471- 64 | 470 OHM 5% 1/2W |
| R409 | 61A 602-472-52T | | | | 4.7K OHM 5% 1/6W |
| R410 | 61S 602-152-52T | | | | 1.5K OHM +–5% 1/6W |
| R411 | | 61A 602-332- 65 | | | 3.3K OHM 5% 1/6W |
| R412 | 61A 602-153-52T | | | | 15K OHM 5% 1/6W |
| R413 | | 61S152M-221- 64 | | | 220 OHM 5% 2W |
| R414 | 61S 172-220-52T | | | | 22 OHM 5% 1/4W |
| R415 | | 61A 602-333- 65 | | | 33K OHM 5% 1/6W |
| R416 | 61A 602-472-52T | | | | 4.7K OHM 5% 1/6W |
| R417 | | 61A 602-104- 65 | | | 100K OHM 5% 1/6W |
| R418 | 61A 602-822-52T | | | | 8.2K OHM +–5% 1/6W |
| R419 | 61S 172-102-52T | | | | 1K OHM 5% 1/4W |
| R420 | 61S 602-101-52T | | | | 100 OHM 5% 1/6W |
| R421 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R422 | 61A 602-223-52T | | | | 22K OHM 5% 1/6W |
| R423 | | 61S 175-151- 64 | | | 150 OHM 5% 1/2W |
| R425 | | 61A 602-183- 65 | | | 18K OHM 5% 1/6W |
| R426 | 61A 602-222-52T | | | | 2.2K OHM +–5% 1/6W |
| R428 | 61A 602-223-52T | | | | 22K OHM 5% 1/6W |
| R429 | 61S 602-101-52T | | | | 100 OHM 5% 1/6W |
| R430 | 61S 602-101-52T | | | | 100 OHM 5% 1/6W |
| R432 | | 61A 602-824- 65 | | | 820K OHM +–5% 1/6W |
| R433 | 61A 602-472-52T | | | | 4.7K OHM 5% 1/6W |
| R460 | 61A 602-222-52T | | | | 2.2K OHM +–5% 1/6W |
| R461 | | 61A 602-103- 65 | | | 10K OHM 5% 1/6W |
| R462 | 61S 172-471-52T | | | | 470 OHM 5% 1/4W |
| R463 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R464 | 61S 172-471-52T | | | | 470 OHM 5% 1/4W |
| R465 | | 61A 602-203- 65 | | | 20K OHM 5% 1/6W |
| R466 | 61A 602-184-52T | | | | 180K OHM +–5% 1/6W |
| R467 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R468 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R469 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R470 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R471 | 61A 602-222-52T | | | | 2.2K OHM +–5% 1/6W |
| R472 | 61A 602-123-52T | | | | 12K OHM 5% 1/6W |
| R473 | | 61A 602-334- 65 | | | 330K OHM 5% 1/6W |
| R474 | 61A 602-823-52T | | | | 82K OHM +–5% 1/6W |
| R475 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R476 | | 61A 602-393- 65 | | | 39K OHM 5% 1/6W |
| R500 | | 61S152M-339- 64 | | | 3.3 OHM 5% 2W |
| R501 | 61S 602-102-52T | | | | 1K OHM 5% 1/6W |
| R503 | | 61A 602-122- 65 | | | 1.2K OHM 5% 1/6W |



| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------------|-----------------|-----------------------|----------|----------|----------------------|
| R504 | 61A 602-392-52T | | | | 3.9K OHM 5% 1/6W |
| R505 | 61A 602-223-52T | | | | 22K OHM 5% 1/6W |
| R506 | 61A 602-123-52T | | | | 12K OHM 5% 1/6W |
| R507 | 61S 602-102-52T | | | | 1K OHM 5% 1/6W |
| R508 | 61A 602-223-52T | | | | 22K OHM 5% 1/6W |
| R509 | 61A 602-823-52T | | | | 82K OHM +5% 1/6W |
| R510 | | 61A 602-333- 65 | | | 33K OHM 5% 1/6W |
| R511 | 61A 602-822-52T | | | | 8.2K OHM +5% 1/6W |
| R512 | 61S 602-102-52T | | | | 1K OHM 5% 1/6W |
| R513 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R514 | 61S 177-123-52T | | | | 12K OHM +1% 1/4W |
| R515 | 61S 177-123-52T | | | | 12K OHM +1% 1/4W |
| R516 | 61S 602-102-52T | | | | 1K OHM 5% 1/6W |
| R517 | | 61A 602-471- 65 | | | 470 OHM 5% 1/6W |
| R518 | | 61S 175-751- 64 | | | 750 OHM 5% 1/2W |
| R519 | | 61S153M-221-64 | | | 220 OHM 5% 3W |
| R521 | | 61S 175-510- 64 | | | 51 OHM 5% 1/2W |
| R522 | 61S 172-479-52T | | | | 4.7 OHM +5% 1/4W |
| R523 | 61S 172-229-52T | | | | 2.2 OHM +5% 1/4W |
| R524 | 61S 175-471-52T | | | | 470 OHM +5% 1/2W |
| R525 | | 61S 175-331- 64 | | | 330 OHM 5% 1/2W |
| R526 | | 61S 175-759- 64 | | | 7.5 OHM +5% 1/2W |
| R527 | | 61S 175-105- 64 | | | 1MEG OHM 5% 1/2W |
| R528 | | 61S 175-105- 64 | | | 1MEG OHM 5% 1/2W |
| R529 | | 61S 175-105- 64 | | | 1MEG OHM 5% 1/2W |
| R530 | 61A 602-184-52T | | | | 180K OHM +5% 1/6W |
| R531 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R532 | 61S 602-152-52T | | | | 1.5K OHM +5% 1/6W |
| R534 | 61S 602-102-52T | | | | 1K OHM 5% 1/6W |
| R536 | | 61A 602-105- 65 | | | 1M OHM 5% 1/6W |
| R551 | 61A 602-103-52T | | | | 1M OHM 5% 1/6W |
| R552 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R553 | | 61A 602-124- 65 | | | 10K OHM 5% 1/6W |
| R554 | 61A 602-472-52T | | | | 120K OHM 5% 1/6W |
| R555 | 61A 602-823-52T | | | | 4.7K OHM 5% 1/6W |
| R556 | 61S 177-392-52T | | | | 82K OHM +5% 1/6W |
| R557 | 61S 177-273-52T | | | | 3.9K OHM +1% 1/4W |
| R558 | 61S 172-103-52T | | | | 27K OHM +1% 1/4W |
| R559 | 61S 177-203-52T | | | | 10K OHM 5% 1/4W |
| R560 | 61S 177-123-52T | | | | 20K OHM +1% 1/4W |
| R562 | 61S 177-124-52T | | | | 12K OHM +1% 1/4W |
| R563 | 61A 602-153-52T | | | | 120K OHM +1% 1/4W |
| R564 | 61S 172-475-52T | | | | 15K OHM 5% 1/6W |
| R565 | 61S 172-204-52T | | | | 4.7M OHM +1% 1/4W |
| R566 | 61S 177-124-52T | | | | 200K OHM +1% 1/4W |
| R567 | 61A 602-153-52T | | | | 120K OHM +1% 1/4W |
| R568 | 61S 172-475-52T | | | | 15K OHM 5% 1/6W |
| R569 | 61S 177-124-52T | | | | 4.7M OHM +5% 1/4W |
| R570 | 61S 177-134-52T | | | | 120K OHM +1% 1/4W |
| R571 | 61A 602-153-52T | | | | 130K OHM +1% 1/4W |
| R572 | 61S 172-475-52T | | | | 15K OHM 5% 1/6W |
| R573 | 61S 177-274-52T | | | | 4.7M OHM +5% 1/4W |
| R574 | 61A 602-153-52T | | | | 270K OHM +1% 1/4W |
| R575 | 61S 177-561-52T | | | | 15K OHM 5% 1/6W |
| R576 | 61S 177-683-52T | | | | 560 OHM +1% 1/4W |
| | | | | | 68K OHM +1% 1/4W |

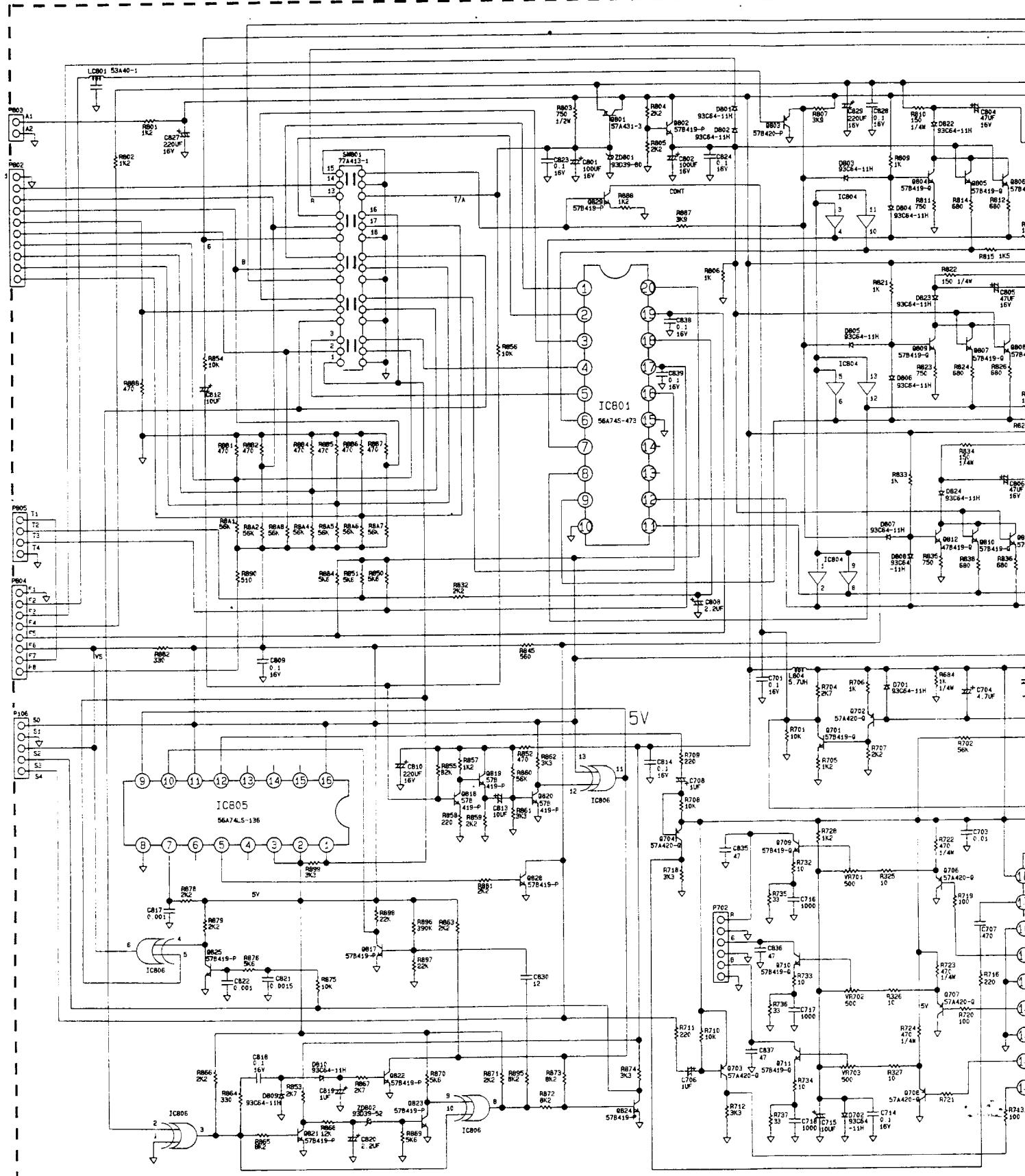


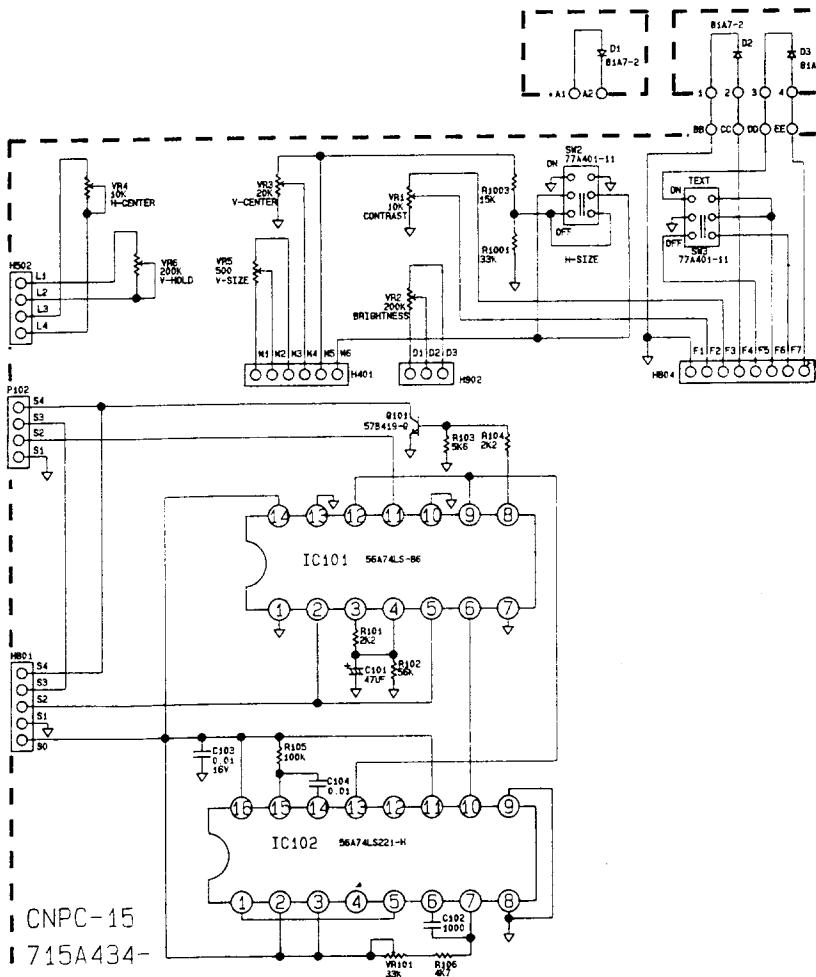
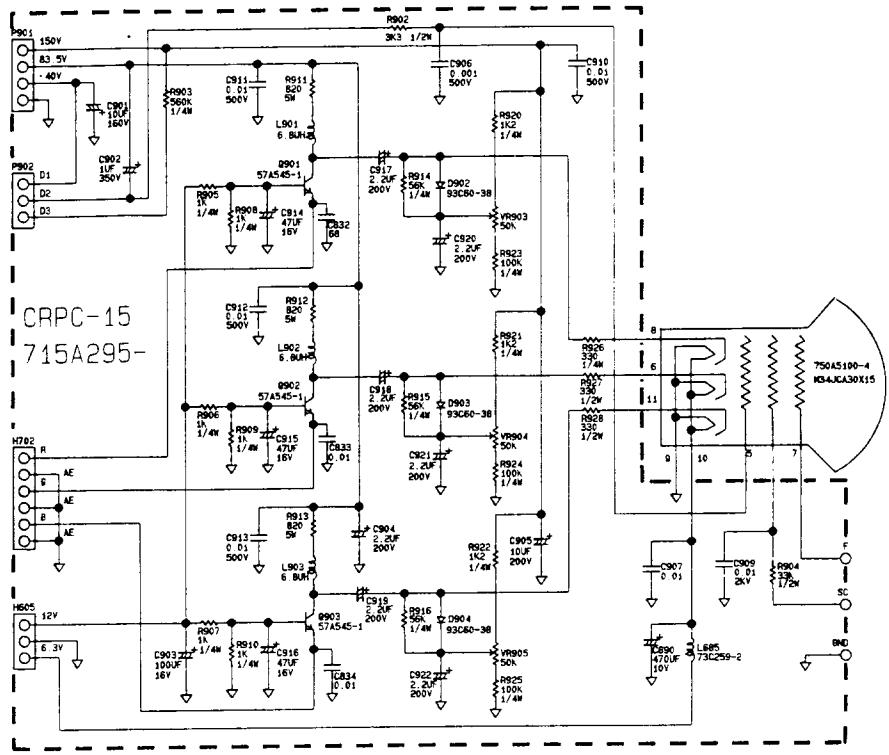
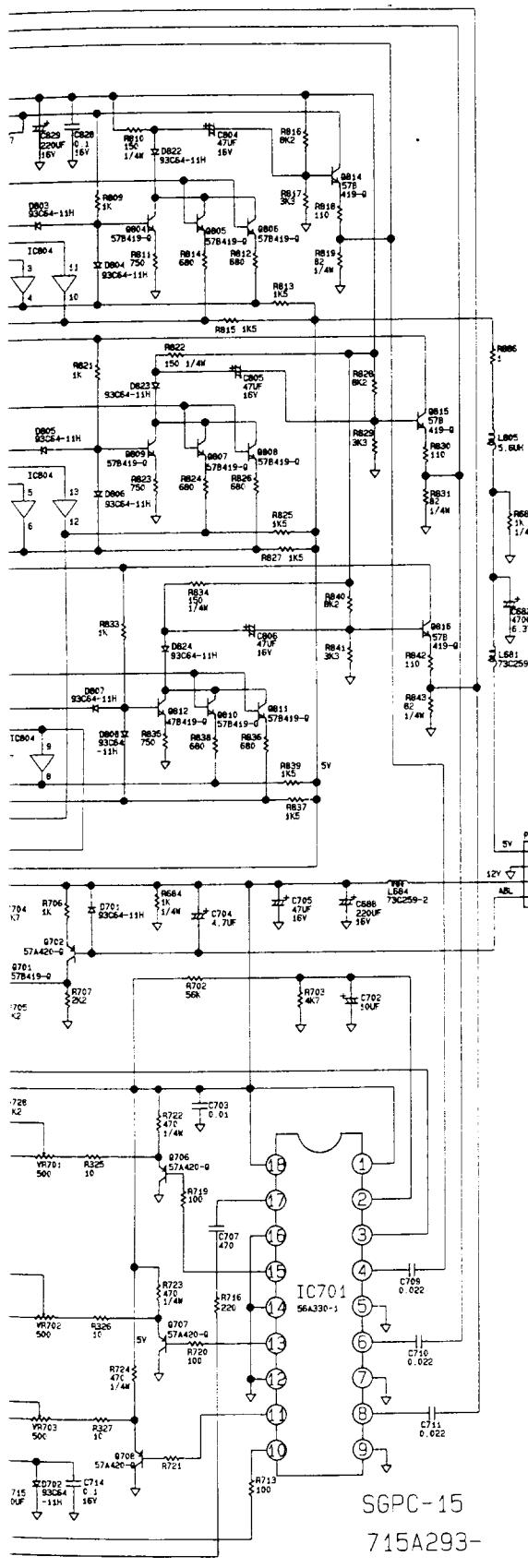
| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|-------|-----------------|-----------------|-------------|-------------|--------------------|
| R577 | 61S 177-124-52T | | | | 120K OHM +−1% 1/4W |
| R578 | 61S 177-474-52T | | | | 470K OHM +−1% 1/4W |
| R579 | 61S 177-753-52T | | | | 75K OHM +−1% 1/4W |
| R581 | 61S 177-104-52T | | | | 100K OHM +−1% 1/4W |
| R582 | 61S 177-104-52T | | | | 100K OHM +−1% 1/4W |
| R583 | 61S 177-104-52T | | | | 100K OHM +−1% 1/4W |
| R584 | 61S 177-473-52T | | | | 47K OHM +−1% 1/4W |
| R587 | 61S 172-479-52T | | | | 4.7 OHM +−5% 1/4W |
| R588 | 61A 602-222-52T | | | | 2.2K OHM +−5% 1/6W |
| R589 | 61A 602-222-52T | | | | 2.2K OHM +−5% 1/6W |
| R590 | 61A 602-562-52T | | | | 5.6K OHM 5% 1/6W |
| R591 | 61A 602-682-52T | | | | 6.8K OHM 5% 1/6W |
| R592 | 61A 602-103-52T | | | | 10K OHM 5% 1/6W |
| R593 | | 61A 602-333- 65 | | | 33K OHM 5% 1/6W |
| R601 | | 61S 175-105- 64 | | | 1MEG OHM 5% 1/2W |
| R602 | | 61D 20-200- | | | 2.4 OHM 5% 10W |
| R603 | | | 61D 52- 16- | 61D 52- 16- | 18 OHM |
| R605 | | 61S 20-274- | | | 75 OHM +−5% 10W |
| R621 | | 61S 175-105- 64 | | | 1MEG OHM 5% 1/2W |
| R622 | | 61A 303-228- 64 | | | 0.22 OHM 5% 1W |
| R623 | | 61D 20-257- | | | 1.2 OHM 5% 5W |
| R624 | 61S 172-102-52T | | | | 1K OHM 5% 1/4W |
| R625 | 61S 172-331-52T | | | | 330 OHM 5% 1/4W |
| R626 | | 61S152M-470- 64 | | | 47 OHM 5% 2W |
| R627 | 62S 172-121-52T | | | | 120 OHM +−5% 1/4W |
| R628 | | 61S 208-259- 64 | | | 2.5 OHM 5% 1W |
| R629 | 61S 172-120-52T | | | | 12 OHM 5% 1/4W |
| R631 | 61S 202-120-52T | | | | 12 OHM +−5% 1/4W |
| R641 | 61S 172-163-52T | | | | 16K OHM +−5% 1/4W |
| R642 | | 61S152M-103- 64 | | | 10K OHM 5% 2W |
| R644 | 61S 172-332-52T | | | | 3300 OHM 5% 1/4W |
| R645 | | 61S 208-513- 64 | | | 51K OHM 5% 1W |
| R646 | 61S 172-103-52T | | | | 10K OHM 5% 1/4W |
| R647 | 61S 172-222-52T | | | | 2.2K OHM 5% 1/4W |
| R648 | 61S 172-101-52T | | | | 100 OHM 5% 1/4W |
| R649 | | 61D 20-242- | | | 18K OHM 5% 5W |
| R661 | 61S 175-474-52T | | | | 470K OHM 5% 1/2W |
| R662 | 61S 175-474-52T | | | | 470K OHM 5% 1/2W |
| R663 | | 61A 303-228- 64 | | | 0.22 OHM 5% 1W |
| R664 | | 61D 20-257- | | | 1.2 OHM 5% 5W |
| R665 | 61S 172-102-52T | | | | 1K OHM 5% 1/4W |
| R666 | 61S 172-332-52T | | | | 3300 OHM 5% 1/4W |
| R667 | 61S 172-102-52T | | | | 1K OHM 5% 1/4W |
| R668 | 61S 172-151-52T | | | | 150 OHM 5% 1/4W |
| R669 | 61S 172-332-52T | | | | 3300 OHM 5% 1/4W |
| R670 | 61S 172-112-52T | | | | 1100 OHM 5% 1/4W |
| R671 | 61S 172-203-52T | | | | 20K OHM 5% 1/4W |
| R672 | | 61S152M-101- 64 | | | 100 OHM 5% 2W |
| R673 | 61S 202-820-52T | | | | 82 OHM +−5% 1/4W |
| R674 | | 61S 208-259- 64 | | | 2.5 OHM 5% 1W |
| R676 | 61S 172-120-52T | | | | 12 OHM 5% 1/4W |
| R677 | 61S 172-519-52T | | | | 5.1 OHM +−5% 1/4W |
| R678 | 61S 172-391-52T | | | | 390 OHM 5% 1/4W |
| R679 | 61S 172-471-52T | | | | 470 OHM 5% 1/4W |
| R682 | | 61S 175-513- 64 | | | 51K OHM 5% 1/2W |

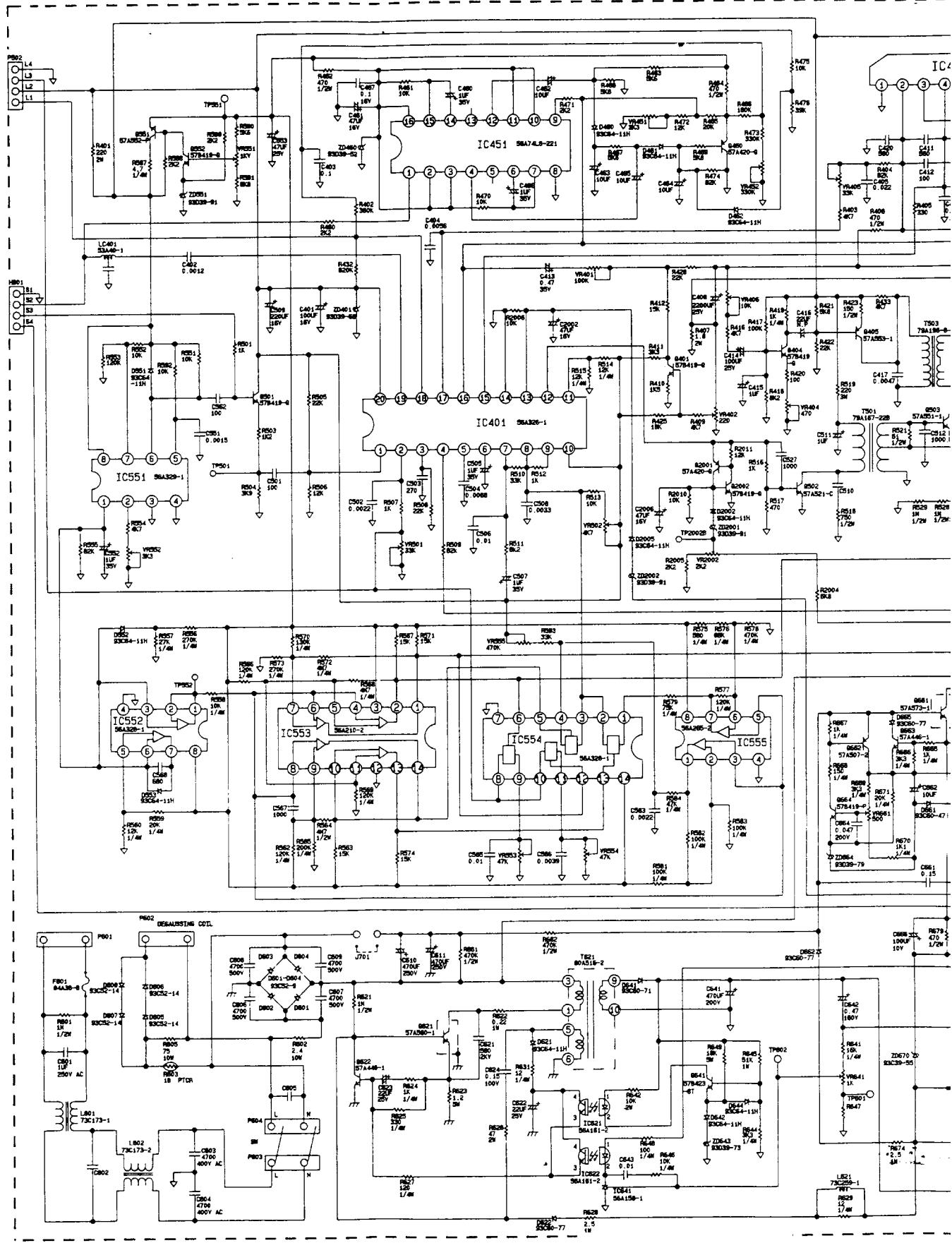


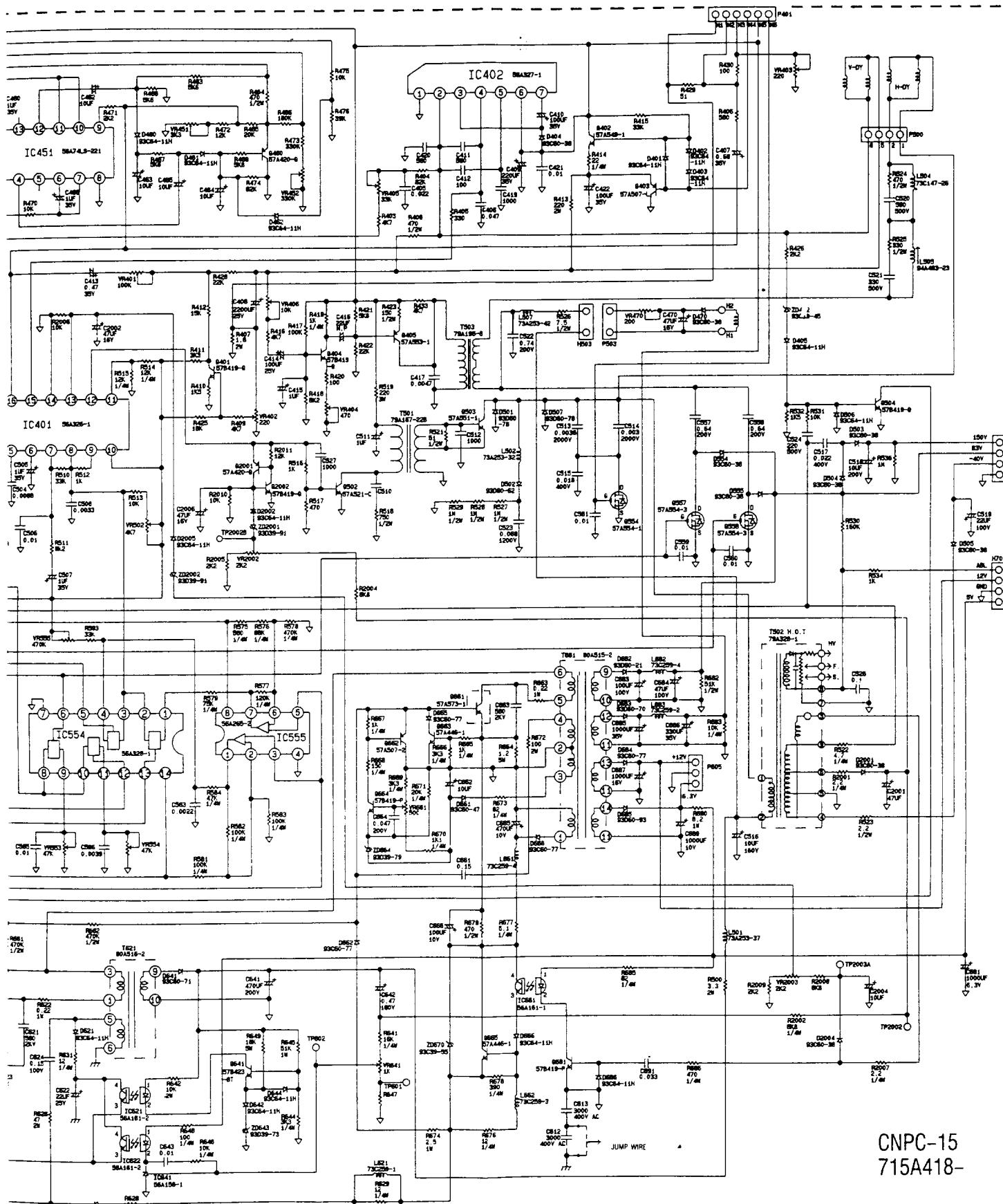
| APPL. | CM314-AI | CMPC-15 | CMPC-15V | CMPC-15Z | SPECIFICATION |
|---------------|------------------------|--------------------|--------------------|----------|-----------------------------|
| R683 | 61S 172-103-52T | | | | 10K OHM 5% 1/4W |
| R685 | 61S 202-820-52T | | | | 82 OHM +5% 1/4W |
| R686 | 61S 172-471-52T | | | | 470 OHM 5% 1/4W |
| R690 | 61S 208-829- 64 | | | | 8.2 OHM 5% 1W |
| T501 | 79A 167-22B- | | | | LK:380UH MAX. |
| T502 | 79A 328- 1- | | | | MULT-SYNC HOT |
| T503 | 79A 196- 8- | | | | LV=460MH +/-5% |
| T621 | | 80A 516- 2- | 80A 516- 2- | | L (3-1)=6.1MH +/-5% |
| T661 | | 80A 515- 2- | 80A 515- 2- | | L (6-5)=3.75MH +/-7% |
| VR2002 | 75A 335-222- | | | | 2.2K OHM +-20% |
| VR2003 | 75A 335-222- | | | | 2.2K OHM +-20% |
| VR401 | 75A 335-104- | | | | 100KB OHM |
| VR402 | 75A 335-221- | | | | 220 OHM +-20% |
| VR403 | 75A 335-221- | | | | 220 OHM +-20% |
| VR404 | 75A 335-471- | | | | 470 OHM +-20% |
| VR405 | 75A 335-333- | | | | 33KB OHM |
| VR406 | 75A 335-103- | | | | 10KB OHM |
| VR451 | 75A 335-332- | | | | 3K3 OHM |
| VR452 | 75A 335-334- | | | | 330K OHM |
| VR470 | 75A 323-201- | | | | 200 OHM +-20% |
| VR501 | 75A 335-333- | | | | 33KB OHM |
| VR502 | 75A 335-472- | | | | 4K7 OHM |
| VR551 | 75A 335-102- | | | | 1KB OHM |
| VR552 | 75A 335-332- | | | | 3K3 OHM |
| VR553 | 75A 335-473- | | | | 47K OHM +-20% |
| VR554 | 75A 335-473- | | | | 47K OHM +-20% |
| VR555 | 75A 335-474- | | | | 470K OHM +-20% |
| VR641 | 75A 314-102- | | | | 1K OHM +-20% |
| VR661 | 75A 323-501- | | | | 500 OHM +-20% |
| ZD2001 | 93C 39- 91-52T | | | | 7.78-8.19V DIODE |
| ZD2002 | 93C 39- 91-52T | | | | 7.78-8.19V DIODE |
| ZD401 | 93D 39- 68-52T | | | | 11.44-12.03V DIODE |
| ZD402 | 93C 39- 45-52T | | | | 24V +-5% ZENER DIODE |
| ZD460 | 93D 39- 52-52T | | | | DIODE |
| ZD551 | 93C 39- 91-52T | | | | 7.78-8.19V DIODE |
| ZD643 | 93D 39- 73-52T | | | | ZENER DIODE |
| ZD664 | 93D 39- 79-52T | | | | DIODE |
| ZD670 | 93C 39- 55-52T | | | | 30V +-5% ZENER DIODE |

| APPLICATION | UL | VDE | SAA | BSI | CSA |
|---------------------------------------|-----------|-----------|-----------|-----------|-----------|
| Video Adapter 15 pin D to 9 pin D | 390683-01 | 390683-01 | 390683-01 | 390683-01 | 390683-01 |
| Video Adapter 15 pin D to 23 pin D | 390682-01 | 390682-01 | 390682-01 | 390682-01 | 390682-01 |
| Cable, Power | 903508-04 | 903508-01 | 903508-03 | 903508-17 | 903508-04 |
| Manual, users | 363369-01 | 363370-01 | 363370-01 | 363370-01 | 363369-01 |







CNPC-15
715A418-